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AMERICAN BUILDER

and Building Age

NAME REGISTERED U. S. PATENT OFFICE AND CANADIAN REGISTRAR OF TRADE MARK

NOVEMBER, 1938

60th Year

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Sweep away red tape— FINANCE HOME LOANS AT HOME

● Give your customers better service on home loans—leave out red tape, delays and disappointment—have money released to you sooner!

Finance home loans *at home* through a *local* institution that fosters savings and lending to encourage home building!

Your *local* Savings or Building and Loan Association is that source. We use a "thrift for building" plan that lends three million dollars a day on American homes—that finances nearly half of America's small home loans for construction and remodeling!

Nearly 110 years ago the first amortized home loan plan was introduced in America by our type of institution. And home owners who have built new homes, bought existing ones, refinanced

property and modernized have enjoyed the benefits of this home financing service all these years.

Check these home financing advantages offered by your *local* Savings or

Building and Loan Association. Then you'll be glad to recommend us—where home dollars are invested at home to help local business and make local jobs!

1. Fast service—no red tape
2. Convenient service—easy to understand
3. Friendly service—deal with neighbors
4. Long term loans—repaid like rent

For a sound, efficient, friendly source of home financing, we offer our services for your consideration. Recommend us, we are waiting to help you!

This is one of a series of advertisements sponsored by members of the United States Building and Loan League, 333 North Michigan Ave., Chicago.

CONTRACTORS! Whether it's for buying, building, modernizing or refinancing, this local home financing service will give you definite proof that—

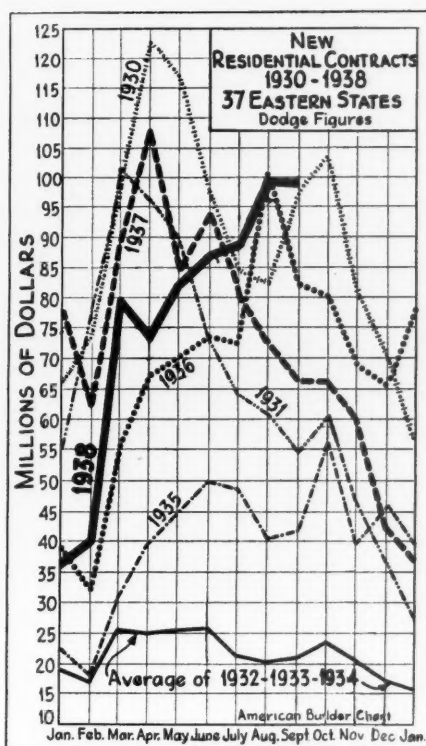
**WHEN YOU SUPPORT YOUR
LOCAL SAVINGS AND HOME
FINANCING INSTITUTION
—YOU HELP LOCAL
BUSINESS**

Your Local

**SAVINGS OR BUILDING
AND LOAN ASSOCIATION**

PUBLISHER'S PAGE

Home Building Forges Ahead



THE gathering momentum of house construction is one of the most significant and encouraging aspects of the present business situation.

This home building is privately promoted and financed. It is a natural result of the normal exercise of business enterprise to meet a genuine need. It is typical of America's "small business." It is so wide-spread that every state and every community is feeling its energizing effects. It is furnishing employment in steadily increasing volume to local building labor as well as to the factory, mill and mine labor which serves the building industry.

And the final product of this home building movement is sound, productive, taxable and usable wealth. It is very much in the public interest—contributing directly to health, happiness, stability and self-reliance.

Building improvements, including home building, are an evidence of returning business prosperity and growing confidence in the future. These investments in homes and in other needed buildings also contribute directly to business prosperity and general confidence. So the present upturn in construction is both a sure sign of, and a powerful contribution to, an era of improving business.

SEPTEMBER residential contracts for the 37 eastern states as reported by F. W. Dodge set another good record of over ninety-nine and a half million dollars, practically repeating the high figure of the preceding month. October also is evidently going strong, the first fifteen days adding a total of \$50,634,000, which is 42 per cent more than in the first half of September, and indicates the cumulative nature of the present push for new homes.

The total of home building contracts for 1938 up to Oct. 15 comes within 4 per cent of last year's performance up to that date. At the present rate of construction, approximately 300,000 new homes valued at \$1,260,000,000 will be built this year. All available indicators of building activity—building permit records, building and loan association volume, mortgages passed for FHA appraisal, volume of insured mortgages, contract awards and records of intention to build—show that total residential construction for 1938 will exceed 1937. Current developments confirm predictions made by American Builder earlier in the year. The home building tide is rising, and at the present rate of gain at least 360,000 new dwelling units valued at \$1,512,000,000 will be built during 1939.

The contribution to the nation's economic life of such a quantity of widely distributed sales and employment will be substantial.

Samuel O. Dunn

SIMMONS-BOARDMAN PUBLISHING CORPORATION: SAMUEL O. DUNN, CHAIRMAN OF THE BOARD; HENRY LEE, PRESIDENT; BERNARD L. JOHNSON, ROBERT H. MORRIS, DELBERT W. SMITH AND ROBERT E. CLEMENT, VICE-PRESIDENTS; ROY V. WRIGHT, SECRETARY; E. T. HOWSON, ASSISTANT SECRETARY; JOHN T. DE MOTT, TREASURER. EXECUTIVE AND EDITORIAL OFFICES: 105 WEST ADAMS STREET, CHICAGO; 30 CHURCH STREET, NEW YORK CITY

'SLEEPING POWDER'

"'INCOR'S A SURE CURE FOR SLEEPLESS NIGHTS WORRYING OVER FROST-DAMAGED CONCRETE"

TO SAVE money and take the worry out of cold-weather concreting, eleven years' experience says: "Use 'Incor' 24-Hour Cement."

Through basic processing improvements, 'Incor' cures or hardens in one-fifth the usual time. Result:

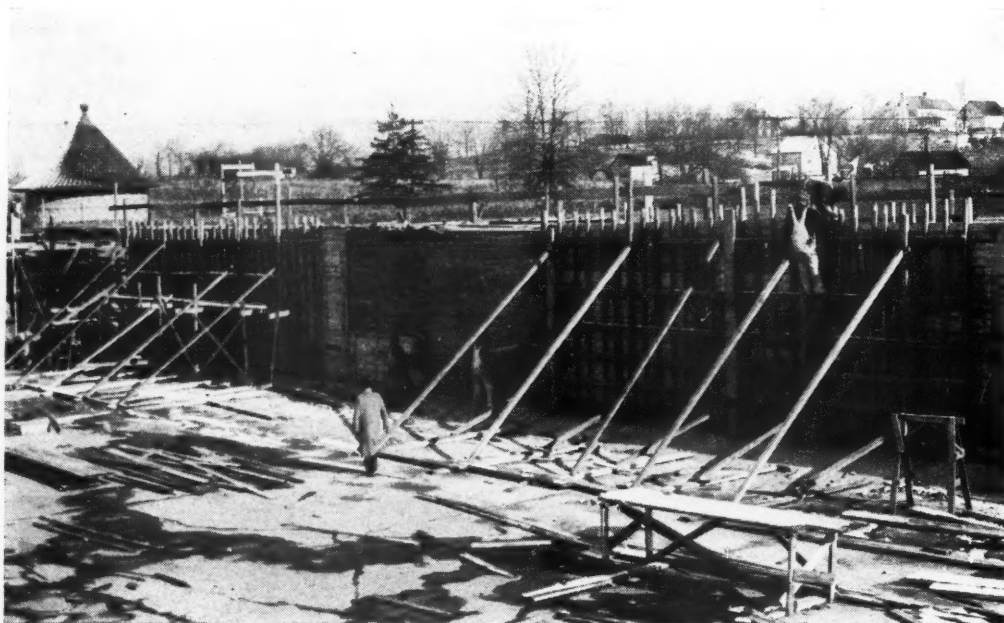
1. Heat-protection costs 60 to 70 per cent lower;
2. Cold-wave hazard reduced to hours, instead of days; less worry in cold-weather work;

3. Form re-use is speeded up—one form-set does the work of several;

4. Summer schedules maintained, even in dead of Winter—labor lay-offs minimized.

Figure these economies on work now in progress. Take advantage of 'Incor'* savings on cold-weather work. Write for copy of "Cold-Weather Concreting." Lone Star Cement Corporation, Room 2227, 342 Madison Avenue, New York.

*Reg. U. S. Pat. Off.



Concreted in the snow, air temperature 25°, dividing wall in Ardsley, N. Y., reservoir of New Rochelle Water Co. was completed in 22 days. Cuzzi Bros., Mt. Vernon, N. Y., contractors, obtained strong, dense, water-tight concrete and secured frost-damage protection at reduced expense.

LONE STAR CEMENT CORPORATION

MAKERS OF LONE STAR CEMENT . . . 'INCOR' 24-HOUR CEMENT

AMERICAN BUILDER

AND BUILDING AGE

Sensationalism Does Not Encourage Home Building

TO PROMOTE the public's interest in home building and home ownership is extremely desirable. When properly and constructively done such promotional work builds business for dealers, contractors and all the ramifications of the building industry, and also leads the consuming public into sound investments and better homes.

Unfortunately, however, it sometimes works out that what was intended to be helpful to the cause of home building actually served more to confuse and dismay rather than to encourage the typical mid-income family which had been hoping presently to buy or to build. The suggestions offered and the home designs recommended have in some instances been so bizarre and impractical as to leave the average man, and his wife, pretty well flabbergasted.

So, while the building industry unquestionably welcomes all sincere efforts to interest the general public in the new style homes, building men and their associates feel that some recent publicity stunts and projects have been ill-advised. These include demonstration homes, home design competitions and popular magazine architectural features. Some of these have gone modern in such a sudden and wild way that the public has been unsold on the old but not sold to the new.

Demonstration Homes

The building of so-called model or demonstration homes is widespread, the customary motive being to interest the public and to make it more ready to buy or to build new homes. Often these exhibit houses are erected by an operative or merchant builder to attract prospects to his subdivision. Often they are sponsored by some building material or home equipment manufacturer as a promotional device for his particular material or equipment. Sometimes an association of such manufacturers jointly sponsors such demonstration homes. Sometimes newspapers or other publications promote such programs with the purpose of interesting advertisers.

In all these types of exhibit home building it would seem to be good business sense to present to public view a home of such design and cost as to interest and encourage home seekers of the price and taste class it is hoped to reach. If a market survey shows a need for low and

medium cost homes, there seems little point in featuring a sample home which in size and equipment is two or three times as expensive as the home seekers in that market can afford. Also if the established style trend of a region is for the Colonial, as in the Northeast, or for the Spanish, as in the Southwest, it would seem ill advised to go counter to such established home design preference by evolving for the exhibit house something of a radically different appearance.

Freak Houses Hurt

In the opinion of this publication some of the so-called model homes exhibited these past few years have been freaks. Their sponsors were evidently overinfluenced by motives of showmanship; with the result that instead of encouraging home buying and home building the public has been bewildered. Sensational novelties in design, construction and equipment have perhaps won for the sponsor plenty of "publicity" and have thronged the exhibit with long processions of the curious minded; but sales and building contracts have not followed.

Looking back now on more than ten years of demonstration home experience in all parts of the United States, and reviewing the successes as well as the failures, it is the conclusion of this publication that sensationalism in these homes offered as "models" does not encourage home building but rather confuses the home seeking public and causes it to delay and postpone the decision to buy or build.

Weird Competition Designs and "30-Minute Expert" Magazine Features

And this home building sensationalism is not confined to demonstration homes. It is cropping out continually in widely publicized architectural competitions and in popular magazine articles and design features intended for general consumption and offered as "the latest" in home building advice.

The business men of the building industry of course welcome and appreciate every effort from whatever source, sincerely made in the interest of home ownership and a sound program of home building; but they would like to see better judgment displayed in the handling of

these popular forays into the field of home building promotion. They would like to see the public encouraged and reassured in its natural home building desires, not confused and misled by showings of radical and revolutionary designs and ideas, offered with seeming authority and branding the average family's ideal of a home as hopelessly out of date.

Several recent nationally advertised architectural competitions for home designs have been so programmed as to bring out almost exclusively exhibits of the moderne, international or shoebox style of house. Younger architects and the unemployed draftsmen who have been most free to submit designs in these recent competitions seem to go for these radical schemes; and the competition sponsors have let them have their way and have widely publicized their ideas, in spite of the much demonstrated fact that the American public does not like and will not have these cubist houses that look so unhomelike.

Wanted: Promotion of Sound Ideas in Line with Public's Home Taste

The business men of the building industry, who are carrying the responsibility in their local communities for promotion, planning and erecting the homes needed there, are saying that they would rather have no promotion at all to the general public rather than the ballyhooing of such radical and impractical home building designs and ideas.

This publication hopes that future competitions for home designs, especially those for small homes, will be more prudently programmed to include more of "what the people want," that popular magazine editors will check up with experienced home building men before recommending astounding and impractical home designs to their readers, and that the demonstration homes still to be built will be more winsome and persuasive to the millions of average prospects—all of this we hope for, even if it is not so spectacular.

Sensationalism may build magazine circulation; but it doesn't build homes. The revolutionary, radical or bizarre only results in confusing the home builder's mind and causing him to postpone his long cherished building or buying project.

* * *

Disaster Insurance

IT SOMETIMES takes a major disaster to bring home to people some simple fact of basic importance in their lives. It took a major disaster such as the flood, fire, hurricane and tidal wave that swept New England to bring home the importance of good construction—not just good construction, but the *best* building that modern science can produce.

Most homes and business structures are built during a time of peace and tranquility when nothing could seem more remote than a hurricane or a tidal wave, a flood or

some other disaster. The prospective owner is sometimes hard to convince that the extra cost of an extra-substantial house is worthwhile. But when the unexpected happens—as it did in New England—and a tropical hurricane whips through the countryside, a tidal wave sweeps in from the ocean, and quiet rivers go on a wild rampage, then is the time the ordinarily hidden values of good construction play their part.

No one will claim that all the millions of dollars of damage done to homes, barns and other structures described in the article on the opposite page, could have been entirely prevented by sound construction. But there is ample proof gathered by *American Builder* representatives who visited these areas that the damage would have been less and many lives saved if construction had been better. Or putting it another way, it can be said that flimsily built, poorly bolted and braced structures suffered the worst.

One graphic example may illustrate. Two houses stood side by side near the Buzzards Bay end of the Cape Cod Canal. The oldest inhabitant could not remember water rising anywhere near this section. Yet when the tidal wave hit with startling swiftness, both houses were inundated up to the second floor windows. For a time both stood firm. Then without warning, one of the houses floated from its foundation, swept into the rushing stream and collapsed, carrying five persons to their death. The other house stood firm, and the occupants have some conscientious New England builder to thank for being alive today.

Small Extra Cost Would Have Assured Safety

This story was repeated many times over. One of the most common omissions apparent both in all-year-round structures and summer cottages was the failure to properly anchor the structures to foundations. It may be said that the cost of a few anchor bolts made the difference between life and death.

Good construction is, of course, more than a matter of a few anchor bolts. The lesson the building industry should learn from this disaster is that almost any community may sometime be hit by a tornado, hurricane, flood or other disaster. The wise builder and the wise owner will do everything possible to build a rugged, substantial structure, firmly anchored, firmly braced, that will truly prove a man's refuge in a storm. A constructive move would be for the various associations of building material manufacturers to review their building recommendations in the light of the manner in which buildings withstood the New England disaster. Perhaps an impartial and thoroughgoing report by some governmental agency would be desirable.

Whatever such action may be taken, the final effectiveness will depend on what builders and contractors decide. The events in New England should help them convince their customers that the best and cheapest form of disaster insurance they can obtain is *better construction*.

1938.

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VIEW OF MAIN STREET along the ocean front at Narragansett, R.I. The pile of wreckage in the foreground was once a row of popular beach stores and pavilions. Most buildings on the street were ruined by the tidal wave and have been condemned. Entire street to be relocated further inland behind a new sea wall.

TWO TYPICAL VIEWS below show waterfront destruction. The cottage at left was washed from its foundation and partially destroyed. The house at right floated a few feet from its foundations and settled in this position. Elsewhere, whole communities of summer homes were completely demolished or washed away.



Flood, Fire, Hurricane

THE hurricane that ripped up the Eastern coast of the United States, accompanied by torrential rains and a tidal wave, left a havoc and destruction worse than any inhabitant can recall. The disaster wrecked thousands of homes and cottages, blew down hundreds of barns and rural structures, demolished many stores and business structures. In the wooded areas of Maine, Vermont and Massachusetts it laid low millions of board feet of timber, which constitutes a serious potential fire hazard. It was one of the most far-reaching disasters that has hit the United States. This is the picture your *American Builder* correspondent saw on a tour of the stricken areas. But it's an ill wind that blows no good, and fortunately for the building industry the good in this case means a vast volume of construction and sale of building materials.

Every dealer interviewed in the stricken area was

doing a rushing business. Roofing was the first big item in demand, and practically all dealers sold out their complete stocks in a few days. Manufacturers in the surrounding areas rushed replacements in by truckloads as soon as the roads were open, and plants worked 24 hours a day to meet the demand.

Every available workman was at work—many for the first time in years—in reconstruction activity. Inland in the states of Connecticut, Massachusetts and New Hampshire the violent hurricane blew off roofs and church steeples, destroyed barns and any structures not strongly built, and blew down a large portion of the trees in the area. Many of the trees in falling damaged homes. The Connecticut and other major rivers flooded by the prolonged rains rose almost to the flood stages of 1936, inundating many cities. Lumber yards along the rivers

(Continued to page 82)

Some Suggestions for Styling Shops and

Store Reconstruction and Building of New Commercial Structures Made Easy With Attractive, Colorful Materials

RECORDS of building activity indicate that one new store is erected for each 16 new homes, either in the immediate residential neighborhood or nearest shopping center. New store building has an immediate effect on commercial modernization, because older buildings must be improved so that they can compete with the newer, brighter, more colorful store fronts and interiors. Attractive new materials for commercial buildings, such as structural glass blocks, colored structural glass, enameled steel, porcelain tile, stainless steel, resin-bonded plywood, plastics, synthetic stone, and combinations of these materials, put new life and color into drab facades, and draw business to new or restyled store and entertainment buildings.

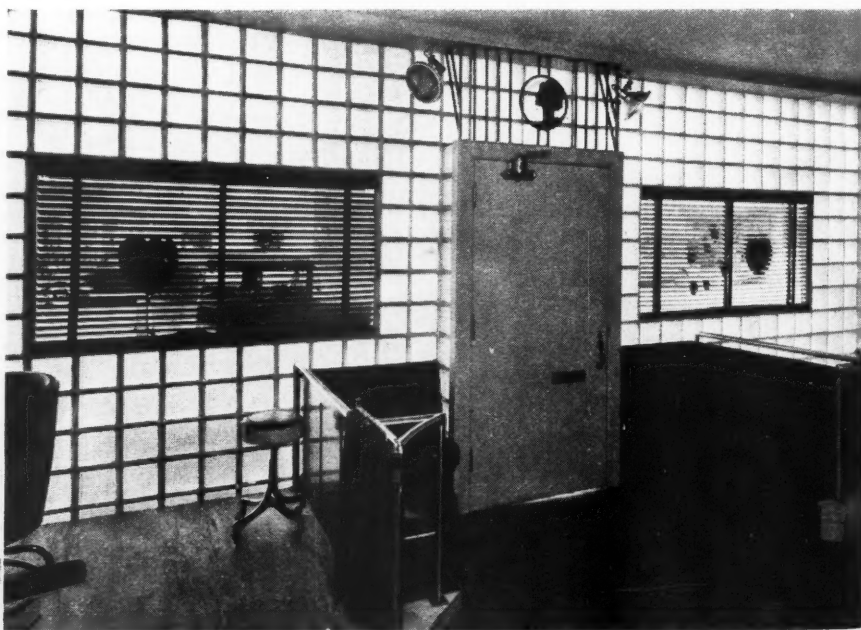
Store layout, lighting and design of display windows, color, and display signs, all play a part in providing opportunities for sparkling originality in commercial structures. Manufacturers of practically all equipment used in store building or modernization now maintain service departments that provide design suggestions and detailed information on installation of their materials. They also issue attractive literature for building men who are concerned with commercial installations.

All store building and restyling involves consideration of facade, windows, entrances, and signs. Stores that sell goods require large, well-lighted display windows, while stores that sell services (restaurants, barber shops, laundries, etc.) require a facade that shows the character and quality of the establishment. Windows of the latter merely reveal what is going on inside. Large stores with an extended street frontage, require a type of facade treatment that need not be described here. Small stores require more ingenuity

in planning than large ones, because they must make up in attention value what they lack in size. When a store occupies a two-story building, or a single-story structure with a false front, an impressive, colorful facade can be used as part of the store front, or as a striking background for an impressive sign that can be seen from a long distance.

Accompanying diagrams show various ways of arranging small store entrances in buildings with both deep and shallow windows, with and without stairways leading to upper floors. All of these entrance layout suggestions have proved unusually successful in actual practice. Additional diagrams illustrate basic principles of display window design and illumination—a subject on which volumes have been written. One diagram shows plans and dimensions of first-floor windows, built with concealed lighting. The other shows an arrangement of first floor and basement display windows that can be used to increase the amount of effective display space in practically any store.

Lighting of store fronts and interiors plays an increasingly important part in modern commercial structures. One reason for rapid increase in the use of structural glass blocks in store construction, is their ability to transmit light and thereby provide better interior illumination. They also can be used to produce striking luminous effects in store fronts through the store's usual interior lighting, or with colored lights set behind glass block panels in facade or walls.



THE INTERIOR of this Long Beach, California beauty shop gets plenty of well-diffused daylight through the front wall of Insulux glass blocks. Views of outsiders are obscured, because the blocks are translucent but are not transparent.

THIS STRIKING beauty shop exterior demonstrates proper use of small windows in a store that sells services; also, how a facade can be used to show character and quality of an establishment. The glass block front is an "eye puller," especially at night when it is illuminated.

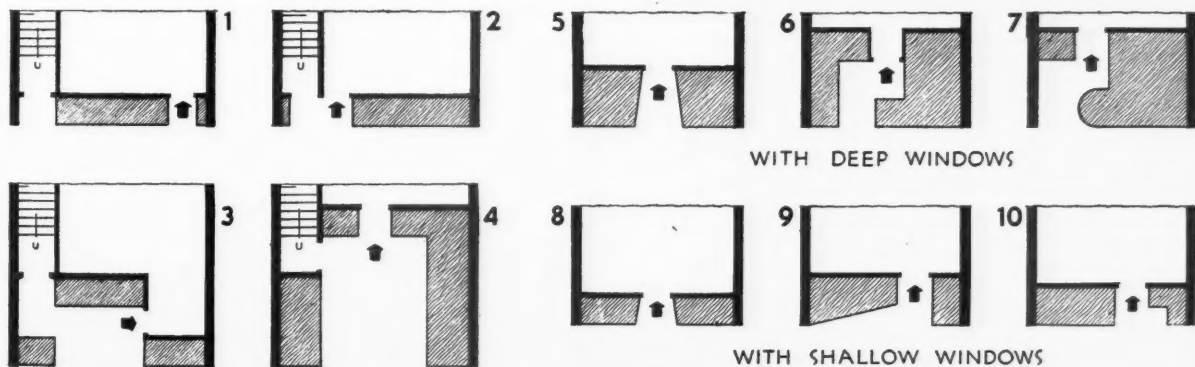


Commercial Buildings

Colored structural glass, both opaque and translucent, is widely used in store fronts. A striking effect is obtained by using colored glass that appears to be opaque in daylight, but gives off a well-diffused glow when illuminated inside the building at night.

Concrete masonry units are regularly used for both load-bearing and non-load-bearing walls, for partitions, as backing for all types of facing materials, for fireproofing, as floor fillers, and for almost every building construction use where masonry can be used to advantage. But the uses of concrete masonry are not entirely structural. Concrete masonry units are a flexible design medium, because the material lends itself readily to any style of architecture. It is adaptable to a wide variety of surface finishes and textures for both interior and exterior walls. Certain types of concrete masonry units made from light-weight aggregates also have excellent sound absorption qualities, making them adaptable for use in the walls of auditoriums, theaters, churches, schools, or wherever good acoustical properties are important.

Porcelain enameled steel finds many uses in commercial buildings, particularly where colorful, durable, exteriors and interiors are required. Enameled facings are available in sheets that can be applied over old wall surfaces and also are made with a backing of light-weight concrete of practically any desired thickness. These combined materials can be built up like any masonry material in partitions or load-bearing walls. Enameled steel sheets can be made up in any desired color, shape, or size, with stenciled designs, trade marks, or signs fused into the surface.



TOP, RIGHT: Entrance to Orlando, Florida, farm implement sales room. All ornamental effects were produced with concrete masonry units.

CENTER: Diagrams 1 to 4 show arrangements of small store frontage having two entrances. Reproduced from booklet, "How to Plan and Construct Modern Storefronts," by Libbey-Owens-Ford Glass Co.

LEFT: Restyled store front in Carbondale, Pennsylvania, showing combination of black and white Carrara structural glass with Pittco aluminumated metal trim, sash, and hooded awning bars.





BLACK, ivory, and green Vitrolite have been combined effectively in the front of this neighborhood theatre in Minneapolis, Minnesota.

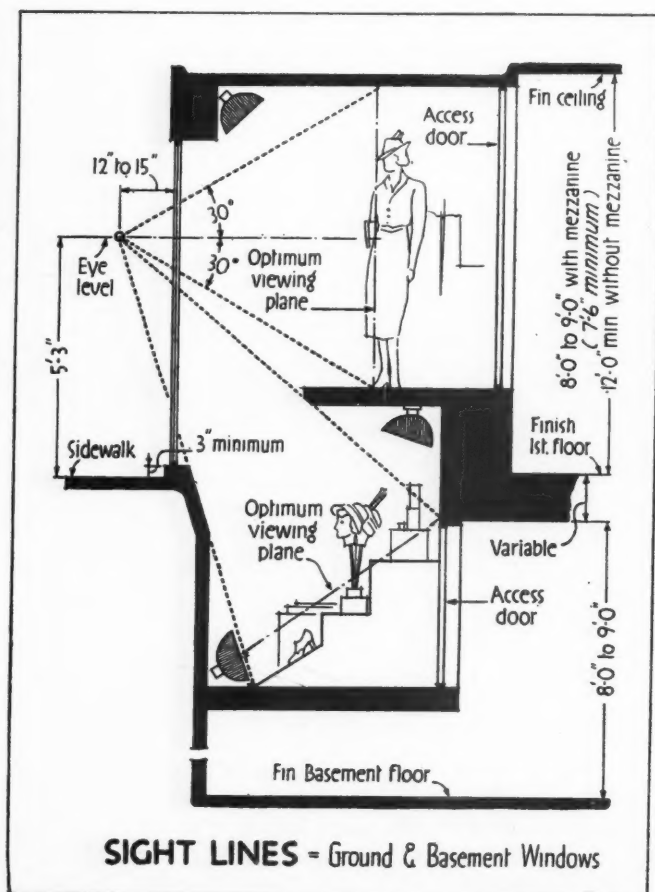
Stainless steel sheets, rolled and drawn, or cast shapes, are used for decorative effects in combination with colorful materials.

The plywood industry has developed light-weight, weather-resistant, resin-bonded boards that can be obtained in practically any desired size or thickness, for use in store facades, cutout signs, and similar outdoor

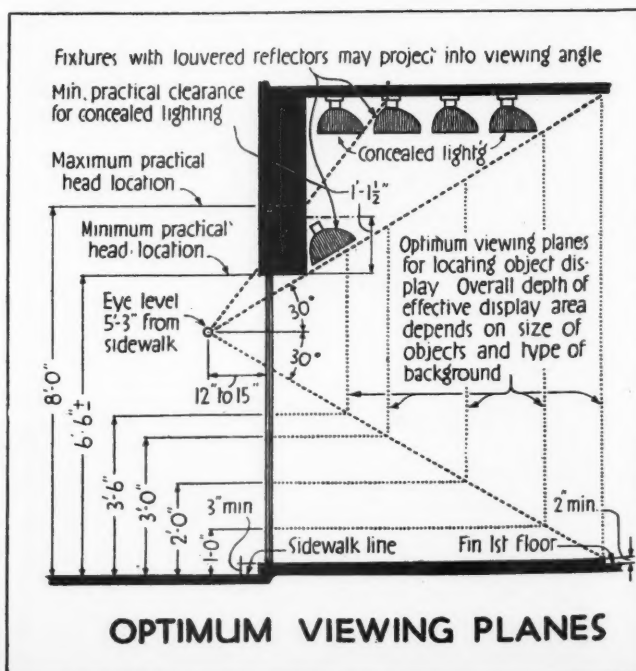
uses. Other plywood sheets with surface veneers of cabinet woods are extensively used for store interiors, because of their light weight and flexibility. Plywood sheets can be used over curved surfaces of counters, display cases, and walls, and to produce other popular streamlined interior effects.

Plastics are available in a wide range of solid colors, attractive designs, marbled effects, and wood grains. These light-weight, durable, materials are mounted on asbestos sheets for exterior use in store facades or bulkheads, and are combined with structural insulation board, or plywood, for interior use. Thin sheets can be applied directly over finished interior walls, if desired. Panel construction is used over rough, or irregular wall surfaces.

BELOW: General principles of display window design and illumination are covered in this diagram. Stores that sell inexpensive products usually require large windows for mass displays. High grade shops that show only a few articles at a time may use small openings with the floor of the window (bulkhead height) raised from 18 to 42 inches above the sidewalk level.



THE diagram above shows how some basement and first-floor displays can be combined. The method can be used in either large or small stores where maximum display space is desired. First-floor and mezzanine display windows can be combined in similar fashion, provided a good view of the window can be obtained from a distance of 25 feet back from the face of the building.



Extruded aluminum and bronze store fronts, and various types of metal moulding strips are extensively used in modern store front construction. Metal forms are available for practically any desired design effect. Stock forms can be used to take care of practically any structural situation that may be encountered in building new commercial buildings or restyling old ones.

Development of modern metal alloys and finishes for aluminum, bronze, and stainless steel has increased the use of metal for store-front work. Rustless metal members can be used for facing an entire store front, or in combination with other materials. Improved metal sash for display windows are equipped with resilient spring grips that take up irregularities in the glass, variations in pressure, and shocks. Ingenious metal awning bars harmonize with the rest of the store front, and are used to shelter the awning roll, or conceal it entirely. Transom bars over windows also are faced with metal, and additional mouldings can be added to widen them if desired.

American Builder will gladly co-operate with readers requesting additional information on the subjects discussed in this article.

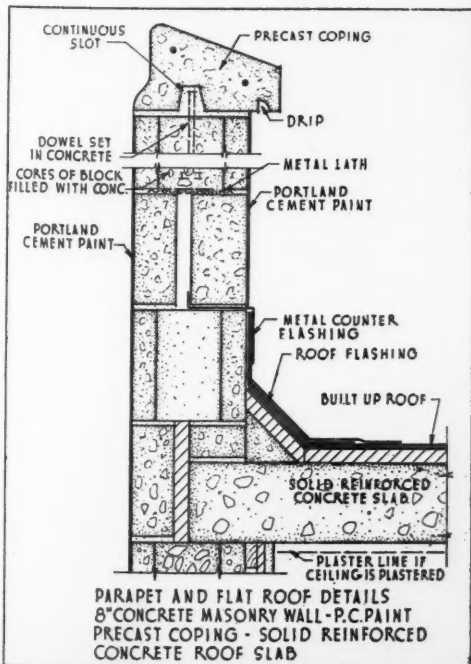


THIS small bakery makes up in attention-value what it lacks in size. Decorative bands are ivory and white Carrara in black background.

RIGHT: Laundry and cleaners' building erected at Orlando, Florida, by Kiehl & Stevens, contractors, entirely with concrete masonry units.

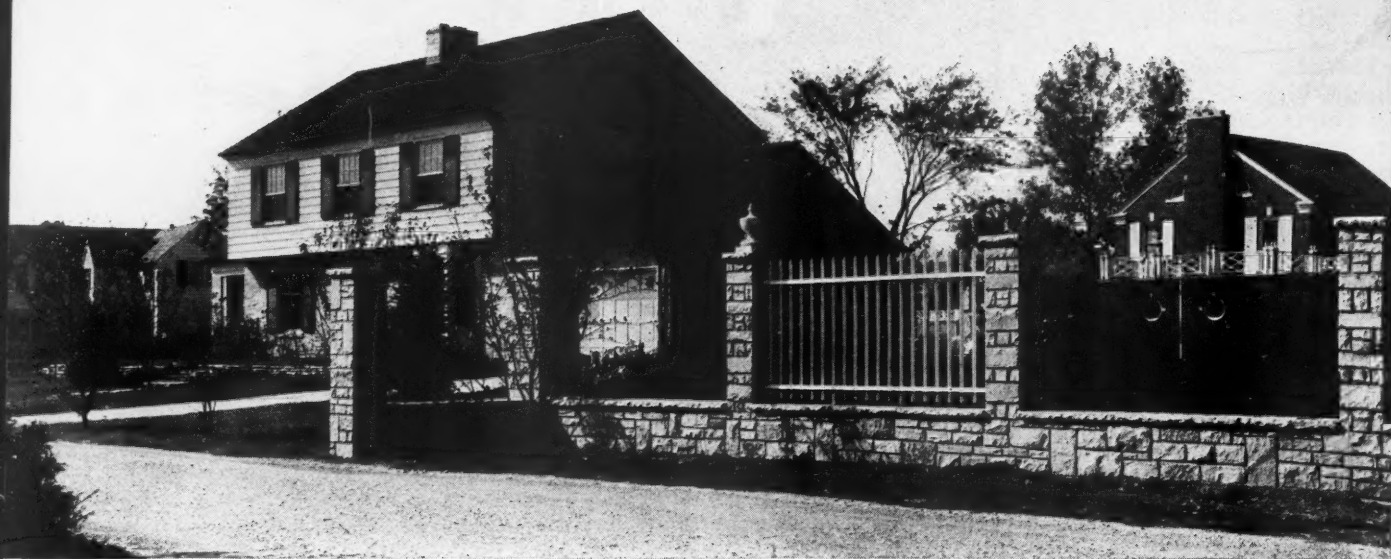


BELOW: Detail showing how ornamental pre-cast coping is set over dowels in parapet. This detail also illustrates roof construction and proper installation of flashings.



BELOW: Stainless steel has been combined with black and white Vitrolite in this Sioux City, Iowa, filling station. Letters on the front wall are painted, galvanized iron.





GLENAYRE HOMES—

My Answer to a Challenge

**Chicago operative builder becomes home manufacturer.
Offers single package units in completely controlled
area-development to meet demand of informed buyers.**

By George F. Nixon,
Former President Chicago Real Estate Board

ABOUT two years ago, while attending a convention of the National Association of Real Estate Boards, I was impressed with the unfortunate lack of co-operation among operative realtor-builders, material interests and FHA officials, notwithstanding our complete agreement that "home manufacturers" presently had the greatest opportunity on earth.

It was immediately apparent that the operative builder had not adjusted his operation to the requirements of the FHA. As a result his loans did not qualify for maximum FHA service.

Realizing that FHA standards and requirements were both reasonable and in complete accord with the elements of value, which practically every successful operative builder had agreed to in theory, I insisted we should put them in practice. This challenge was quickly issued: "If the opportunities are so great and the FHA requirements can be practicably met, why don't you do it?"

A "guinea pig" demonstration of the application of FHA requirements was set down on paper.

The first element of value to be agreed upon was proper location. After this, land utilization. Eleven layouts were drawn of such a proposed development. The one finally agreed upon was entitled to maximum FHA rating. Because the plots were not all of the

GEORGE F. Nixon, prominent developer and builder, who describes in this article his Glenayre homes project; a partial view of this property is seen above looking from the road through the entrance way under construction.



same size and dimension, homes were designed for the initial ten plots which were used as a catapult for our Glenayre Development. (See second page following for this plot plan.) After the architects had designed and located these first ten houses (which adjoined one another without intervening vacant plots) landscape architects were employed to study the location relationship of one house to its neighbor on either side with the particular aim of having every window in each house overlook a garden.

We started a year ago. Today, eleven homes selling for \$18,000 to \$20,000 are completed, sold and occupied; four of these are illustrated with floor plans on pages 36 to 39. Six additional homes are under construction. We have no salesman on the tract. The up-to-the-minute buyer today is *buying* homes. He is not being sold.

When the public stopped buying homes, at the start of the depression, it challenged the building industry and demanded that we provide a better and less costly financing tool than the old first and second mortgage. It challenged land utilization and the crowding that resulted from building homes on 18, 30 and 50 foot lots. We must readjust our programs to meet the new demands made by a well informed public.

The depression created a "security hysteria." In the old days no one paid off a mortgage. People could make more by using that money in the stock market. The depression brought the realization that their only real security lay in a well built home, economically financed. We no longer have to sell the idea of security in home ownership.

What a pleasant transformation from the conversations of young couples of the whoopee parties of yesterday to the wholesome, enthusiastic ideals and conversations of these same couples today. With home reading matter spread before them, they now intelligently and joyfully discuss floor plans, costs, financing, air conditioning and all available information about sound home ownership. They have caught up with the romance, promised happiness and security it assures. Today we have to deal with an educated home buying public. So there is a difference between the mere building of houses as in the past and being a home manufacturer

for the present market. We must pick the building products that deliver service and assemble them into a completed house that the prospective home owner can appreciate. That's all he's interested in—the completed house. Just as the automobile buyer is concerned only with the finished product, we're responsible for buying the parts and assembling them into a home that meets his standards of performance. The owner depends on us, the builders, for this service.

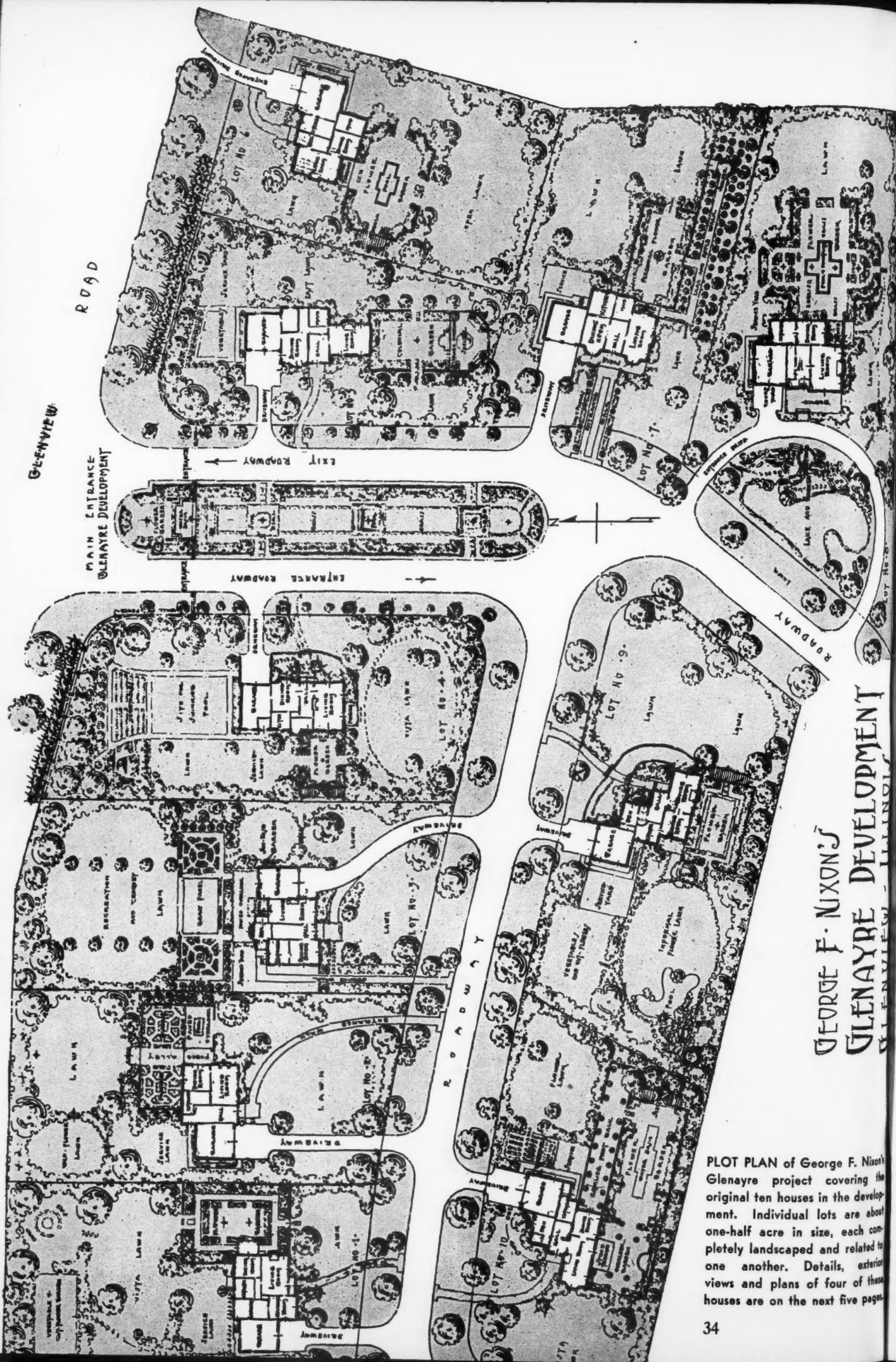
The challenge for a better financing plan has been met. We have in FHA the finest financing tool on this planet. During the past eight years, new and improved products offered by the building industry have made possible more progress in home construction than was made in the previous fifty years. These products offer greater comfort, stability, longer life and more architectural beauty than ever before. It remains for the home manufacturer to combine these services and materials in a complete package unit that meets the demands of an educated buying public that is eager to own homes.

The manufacturer of homes can develop a new index of business volume. The old index of steel production or automobile production can create only a fraction of financial prosperity in this nation that can be created by home building. Home building is the nation's biggest distributor of employment and purchases. We

(Continued to page 86)

BELOW: A clean excavating job is the beginning of a Nixon house. Workmen are shown preparing a cinder fill for porch slab; J & L steel beams and poured concrete first floor are a feature of these houses. Insulite Bildrite sheathing is applied to a circular stair tower. C. W. Lampe, architect, and Al Nixon, superintendent, are seen studying plans on a Cape Cod house nearing completion.



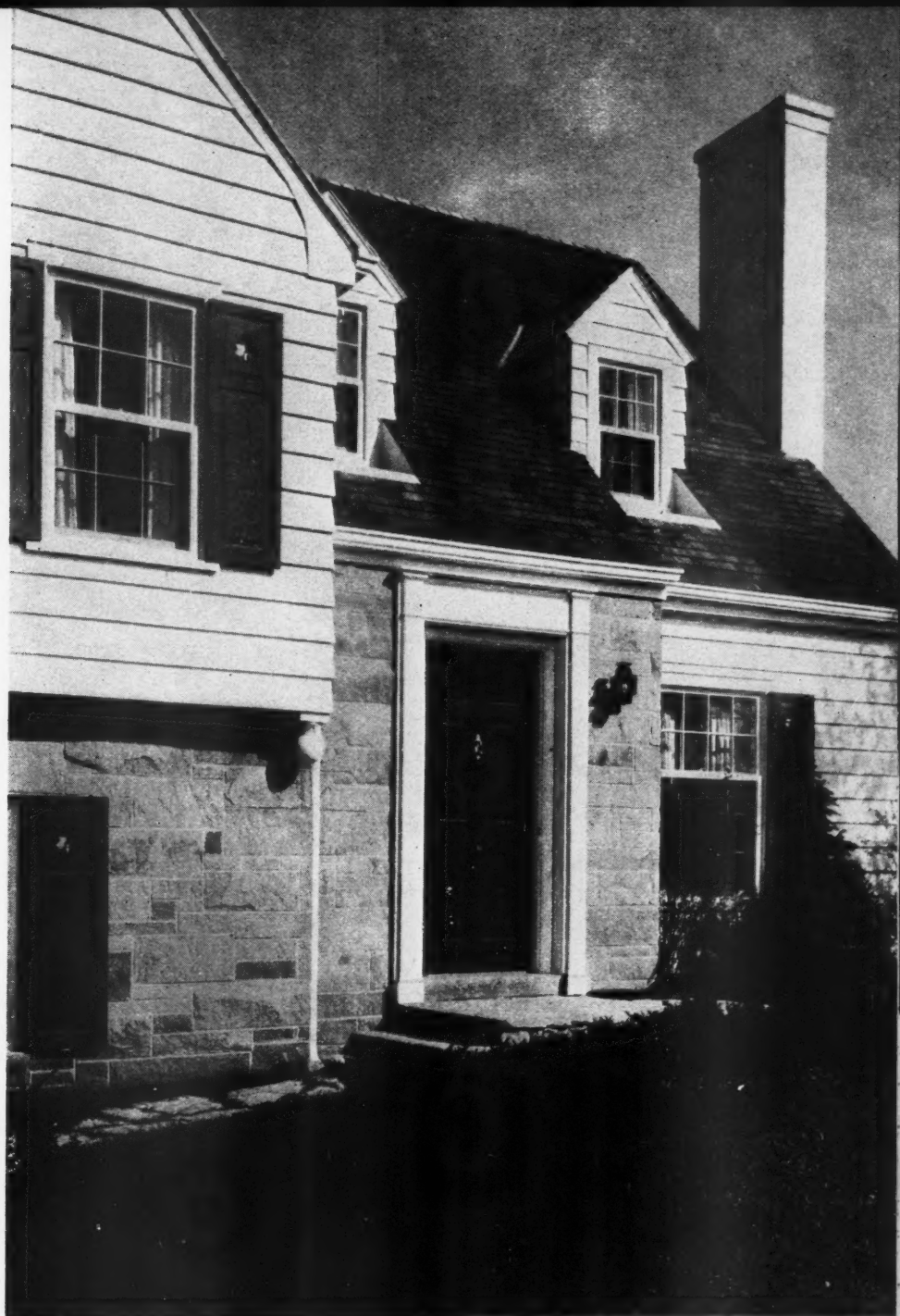


GEORGE F. NIXON'S GLENAYRE DEVELOPMENT

PLOT PLAN of George F. Nixon's Glenayre project covering the original ten houses in the development. Individual lots are about one-half acre in size, each completely landscaped and related to one another. Details, exterior views and plans of four of these houses are on the next five pages.

Fine Details in the House and Livable Features for the Garden

IN the design of George F. Nixon's Glenayre homes, details such as the Colonial entrance to the right and the outdoor barbecue located in a corner of a paved courtyard, as shown below, add to the appeal and salability. Plans and exterior views of four typical Nixon houses appear on the next four pages.



In Selling the Home Buyer in Today's Market, Builders Find That the Single-Unit, Complete-Package Sale Is More Easily Made When Special Features Adding to the Charm and Livability Are Part of Plus Value Design. Examples of Such Features Will Be Found in this Design Section



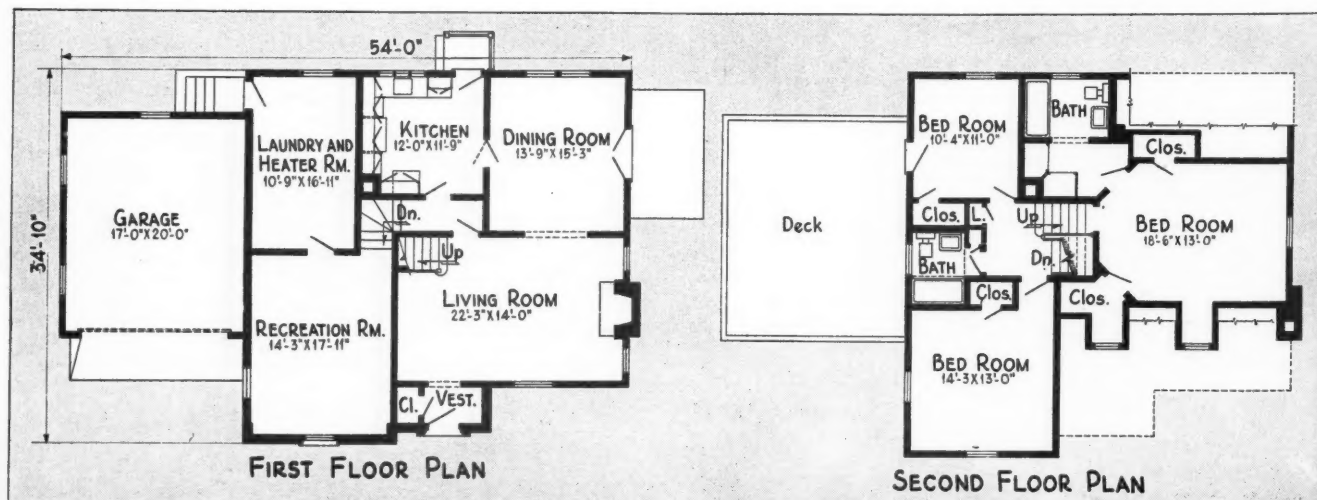
TWO NIXON HOMES—MODIFIED 4-LEVEL COLONIAL AND SOUTH

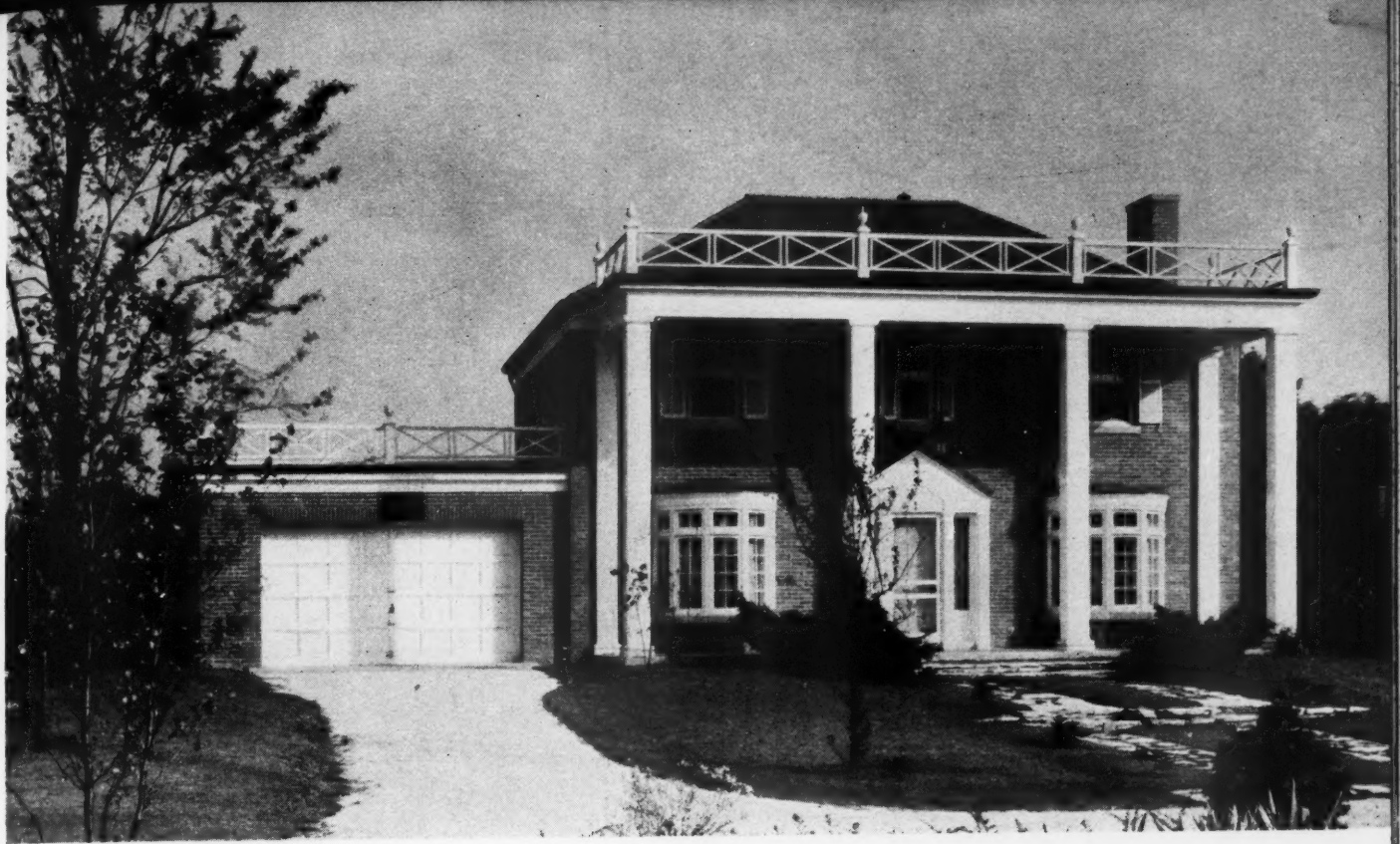
Built by George F. Nixon at Glenayre, near Chicago. C. W. Lampe and Associates, Architects

THE two Colonial houses shown on these pages give some idea of the style range used in designing Nixon's Glenayre homes. Other houses in the development are of Cape Cod, Early American, Georgian, English and French styling modified to the needs of today's functional plan. All of them having been prepared by the firm's staff architects, C. W. Lampe and Associates, this wide range is not disturbing when the development is seen as a unit, but rather adds to the pleasing effect by avoiding the monotony of repetition.

The Colonial house shown above, with plans below, follows the popular four-level layout which Architect Lampe is credited with having originated some years ago. The lower level contains a well lighted recreation room to the

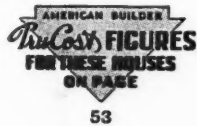
front and a laundry and heater room to the rear. A half-flight of stairs above this level, the large living room, dining room and kitchen are placed. Two bedrooms with a bath between are directly over the recreation room level, and the master bedroom and bath are above the living portion of the house. A two-car garage extends to one side, and a glazed porch off the dining room is placed on the other side. The entrance and first floor exterior beneath the overhang are faced with Briar Hill stone which harmonizes very nicely with the blinds painted a terra-cotta shade. Red cedar siding and shingles cover the balance of the exterior. The exterior attractiveness of this house and its workable plan are typical of Nixon's homes.



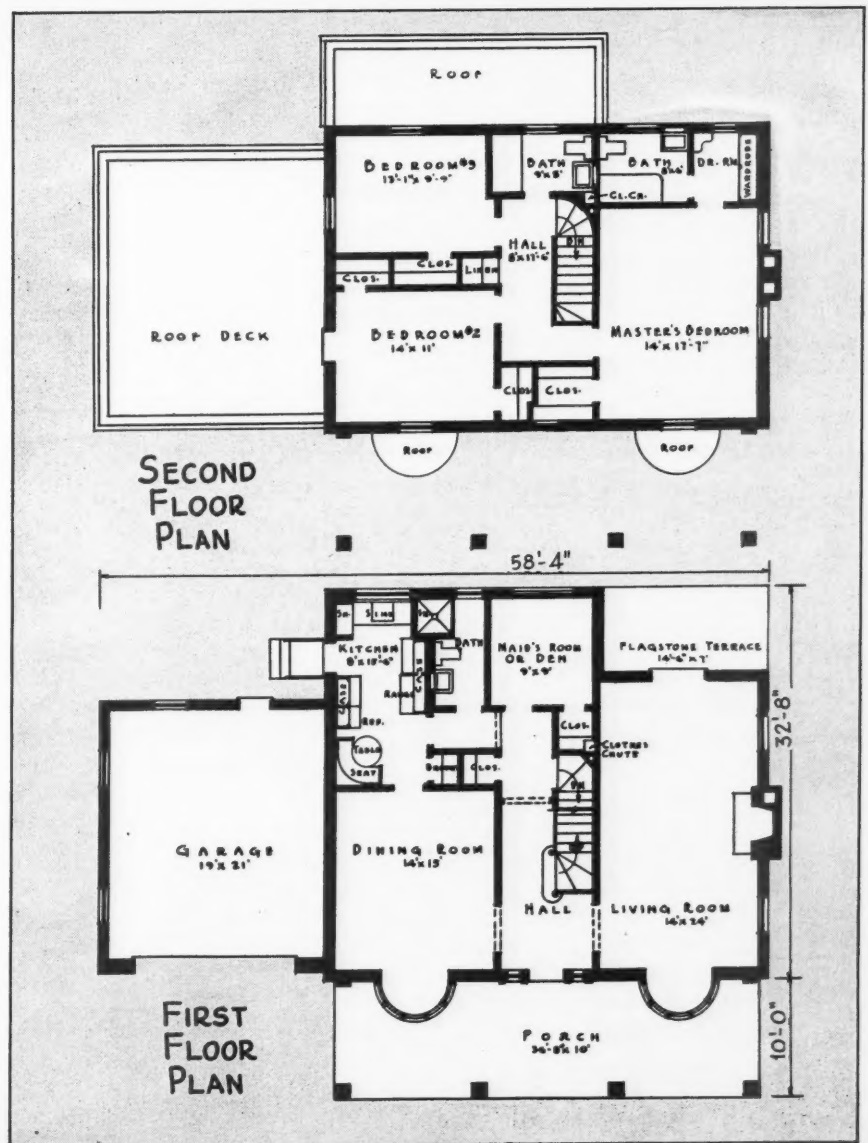


ND SOUTHERN COLONIAL

SEE PAGES 32, 33, 34, 35,
38 AND 39 FOR OTHER
DETAILS ON NIXON
HOMES



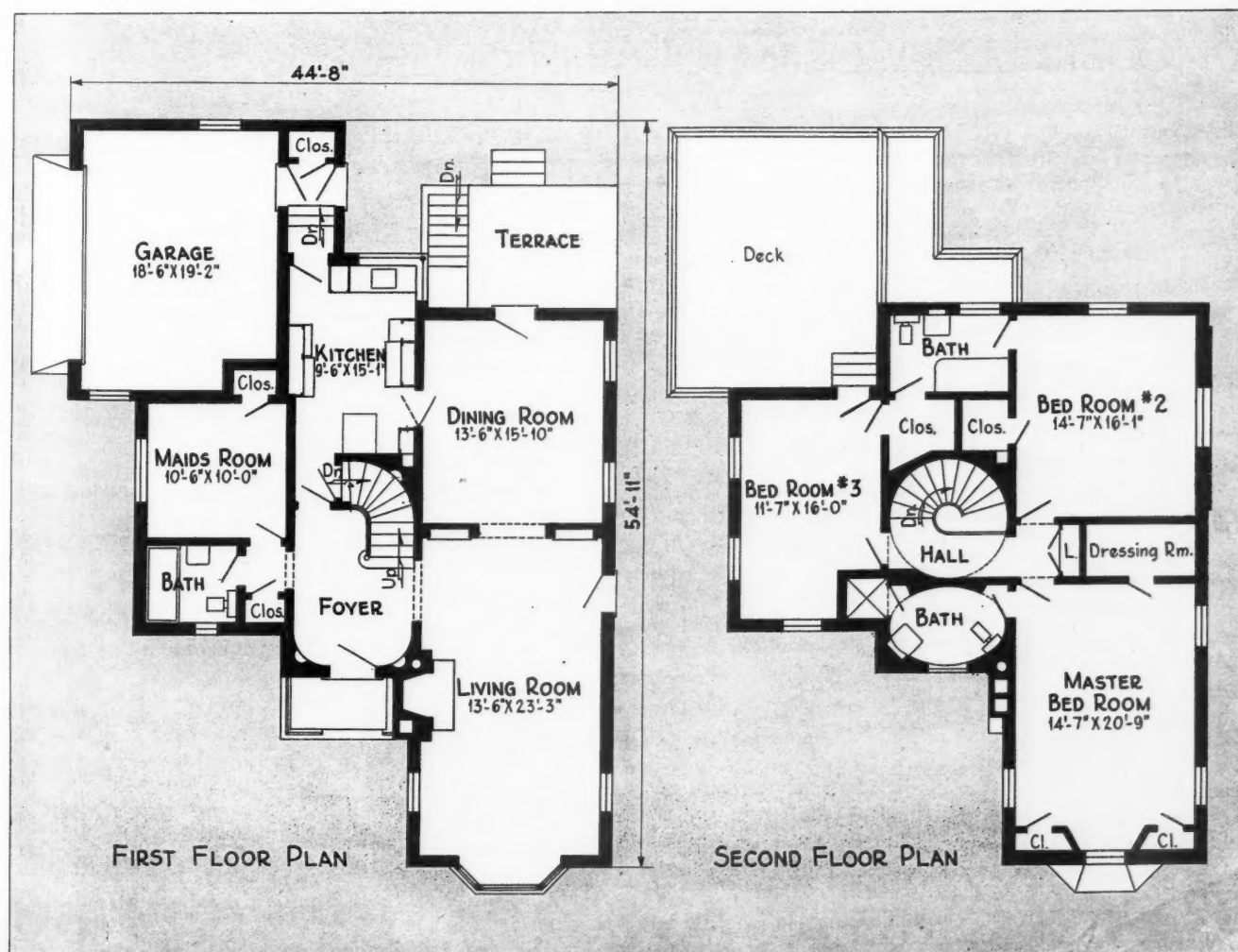
THE FRONT entrance and rounded bay details of this Southern Colonial home built by George F. Nixon are reproduced on the cover of this issue of AMERICAN BUILDER. In plan the seven rooms are very efficiently arranged around the center hall which leads directly back to a maid's room or den. The first floor bath is placed between this room and the kitchen, the latter being very compact and providing space for a breakfast corner. The well proportioned living room on the opposite side of the house opens onto a flagstone terrace at the rear. On the second floor there are three bedrooms with two baths, one of these being the master bath reached through the dressing room. Closet space is generous. A large sun deck over the two-car garage gives additional room for outdoor living.





George F. Nixon, Builder, Chicago
C. W. Lampe and Assoc., Designers

7-ROOM ENGLISH WITH 3 BATHS





THE strikingly modern house at the left features all wood construction. It was erected as a practical demonstration of wood utilization throughout. Jones Hardwood Co., San Francisco, sponsors; Donnell E. Jaekle, architect; Martin Peterson, builder.

A MODERN ALL-WOOD HOUSE IN CALIFORNIA

THE recent completion of this unusual home in Burlingame Hills near San Francisco provides an interesting case study of wood utilization for all structural and finish purposes in contemporary styling. The project is described by Nelson E. Jones of the Jones Hardwood Co., as offering "a new note in beauty . . . a new achievement in comfort and convenience . . . a new record in practical, economical home building . . ." Mr. Jones, who built, sponsored and owns it, further adds, "This handsome, attractively designed structure stands as a challenge and an invitation to home builders of today, awakening them to new possibilities in planning and designing homes of greater charm, comfort and decorative qualities than have heretofore seemed possible in WOOD."

Floor plans on the opposite page indicate the clever arrangement of rooms as designed by Architect Donnell E. Jaekle of San Francisco. The view of the living room shows the way in which the all-wood interiors were handled.

The following construction outline gives the essential details of wood use in the balance of the house as well as lists other materials and equipment items:

FOUNDATION: Concrete with steel reinforcing bars.

FRAME CONSTRUCTION: Douglas fir (Oregon pine) with redwood sills.

ROOF: Tar and gravel.

DOORS AND WINDOW FRAMES: All doors flush hardwood doors with California pine cores and face veneers to match finish of various rooms. Garage doors redwood. California pine sash. Casement windows throughout.

EXTERIOR SURFACES: Five-ply waterproof fir plywood; redwood rustic, Monterey shakes.

EXTERIOR AND INTERIOR FINISHES: National Lead Co. lacquers, enamels for interior; oils, leads for exterior.

INTERIOR WALLS: Hardwoods throughout. Birch trim in kitchen and service portions of house. Enameled. Natural birch doors.

LIVING AND DINING ROOM: Walnut plywood and walnut mouldings. Teak plank floors. Nu-Wood ceilings.

KITCHEN: Kitchen cabinets and kitchen detail by Peerless Built-in Fixture Co. Birch trim and natural finish birch doors and work tops. Ceiling Douglas fir plywood.

BREAKFAST ROOM: Pearlwood paneling, Philippine mahogany mouldings, Teakwood floors and Nu-Wood ceilings.

UPPER HALL LANDING: Walnut trim and walls, oak block floors, Nu-Wood ceiling. Tongue and groove walnut on curved wall. Hardwood floors throughout.

UPPER REAR HALL: Philippine mahogany paneling and trim, Nu-Wood ceilings and oak floors.

MASTER BEDROOM: Birch plank walls. 1x8" T and G "V." Birch trim. Silver tone finish. Herringbone oak floors. Nu-Wood ceilings.

GUEST BEDROOM: Philippine mahogany plank walls, 1x12" T and G. Philippine mahogany trim with magnolia band to meet head casing. Block pattern oak floors. Nu-Wood ceilings.

SON'S BEDROOM: Art-Ply ceilings and walls. Philippine mahogany mouldings and doors.

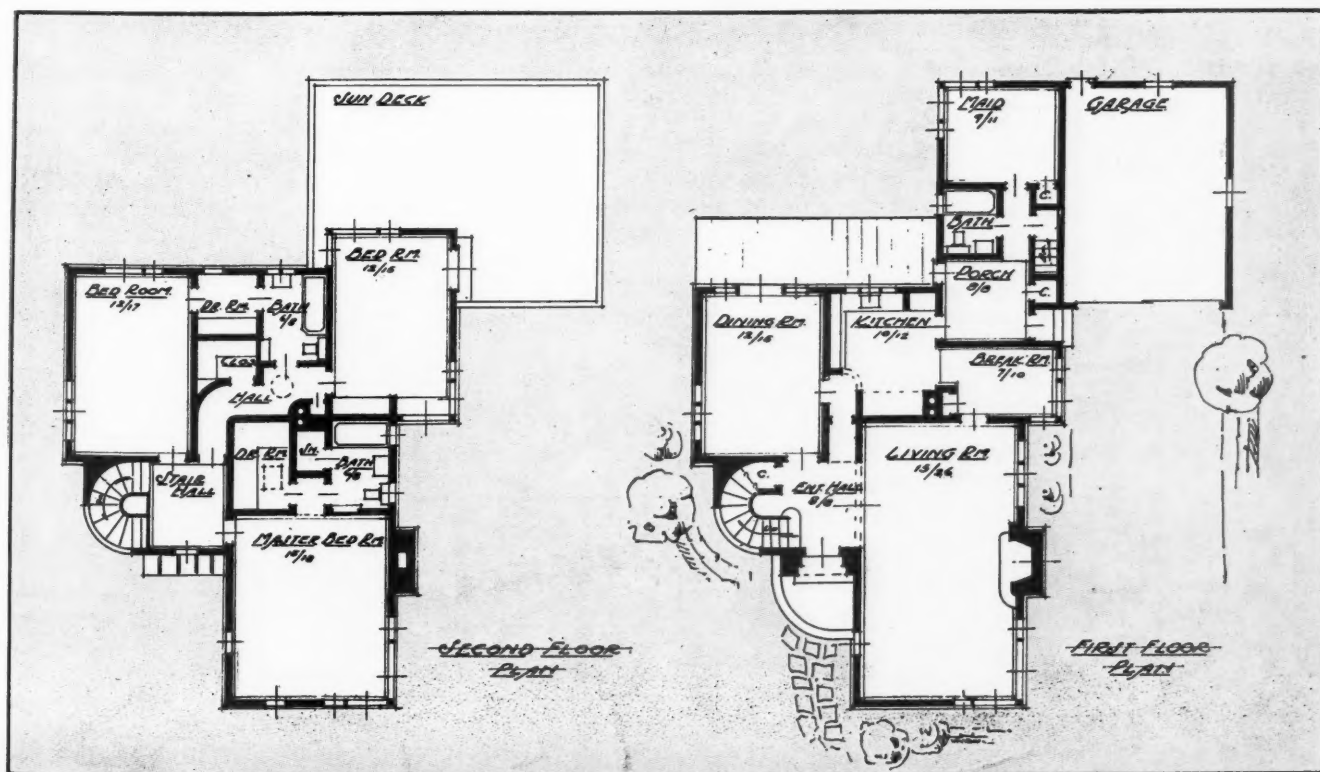
STAIRS: Teak treads. Curly birch risers. Walnut hand rail and birch balusters. Finished to harmonize with halls. **CLOSETS, DRESSING ROOMS AND WARDROBES:** Birch trim and walls with Tennessee cedar lining in clothes sections.

BATHROOM FIXTURES: Standard Sanitary Manufacturing Co.

LIGHTING FIXTURES: Boyd Lighting Fixture Co.



THE LIVING ROOM walls of this California all-wood home are constructed of walnut plywood with walnut trim; floors are teak plank and ceiling is Nu-Wood. In the above view the circular staircase and entrance hall can be seen; the stairs have teak treads, curly birch risers and walnut handrail. The plan below was designed for a maximum of convenience with a practical arrangement of rooms.

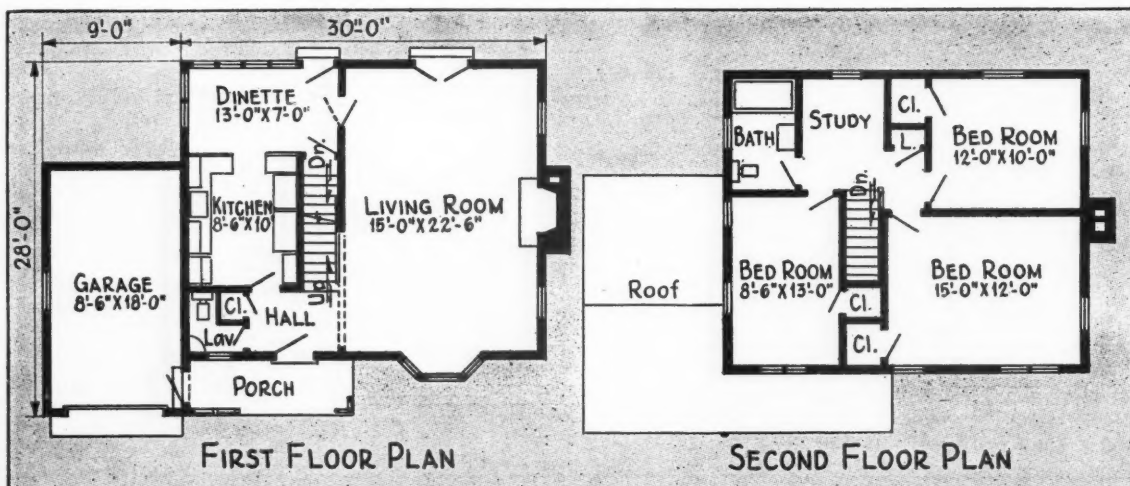




CASE STUDY IN GOOD DESIGN

GOOD design is a difficult value to judge, yet it is one of the principal factors in contributing intrinsic worth to a home. The above house, built by Whitson Improvement Corporation in its Monfort Hills community at Port Washington, N. Y., is a case study of merit. Designed by Architects Kimball & Husted, it is located on the top of a hill with a commanding view, and was planned to fit that site and meet the particular needs of the owners. Its main

charm is its simplicity, which is reflected both in the unostentatious exterior lines and the fine but restrained interior details. Exterior is of cement-asbestos shingles. Roof is of slate. It is insulated and air conditioned. The enormous living room has a fine bay window. Guest closet and lavatory are off the main hall. A well planned dinette with extensive windows replaces the conventional dining room as is being done more frequently today.



AMERICAN BUILDER
The Case FIGURES
FOR THIS HOUSE
ON PAGE

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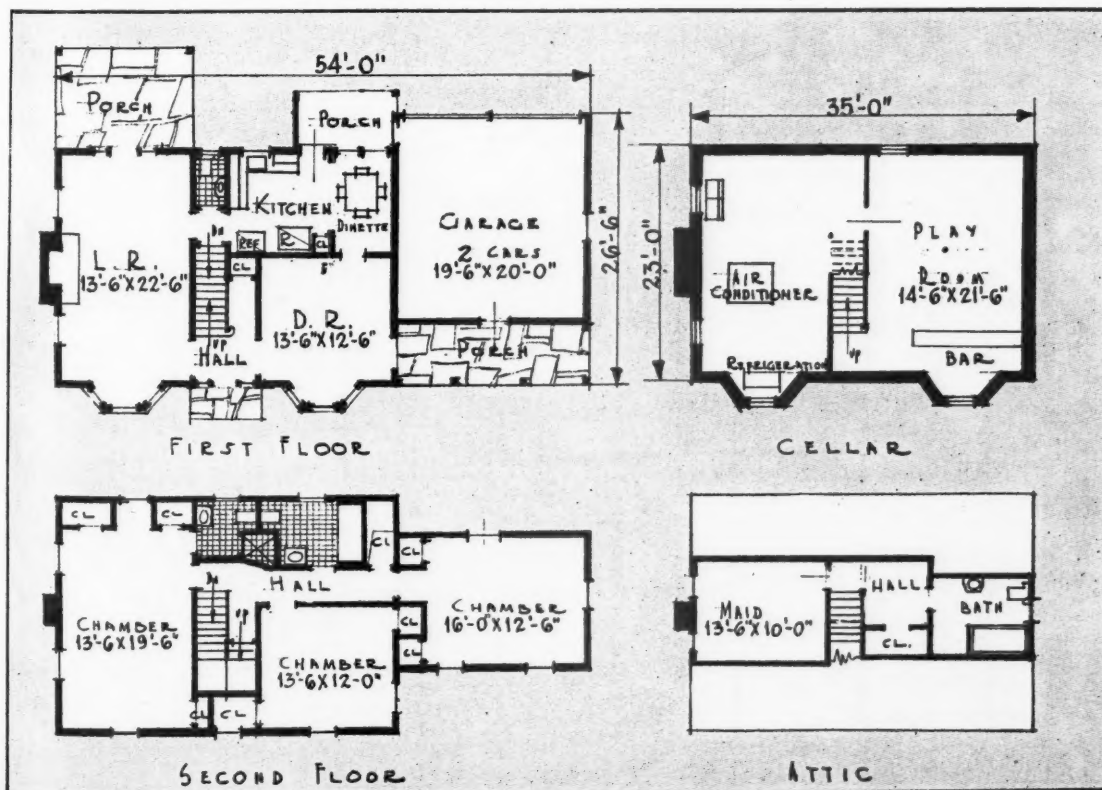
LARGE living room, down-stairs lavatory, dinette with large windows feature this floor plan by Kimball & Husted.



AS AN experienced builder, John A. Baldwin of Teaneck, N. J., is in a position to make home ownership simple and easy. Most of the criticism that home buying is "difficult" is proved untrue when the facts are known. This attractive house designed by J. Norman Hunter is complete, comfortable, easy to buy and easy to own. Floors throughout are of quartered oak, hardware of solid brass. Floors are of firesafe slabs, roof of slate. It is completely insulated, weatherstripped and equipped with year-round air conditioning. The spacious rooms, two-car garage, three baths and maid quarters make it an all-around satisfactory house. The cost to the owner of such a home in the Baldwin development is about \$85 per month.

EASY TO BUY EASY TO OWN

John A. Baldwin, Builder



THIS plus value floor plan provides ample rooms, comfort and livability throughout.

AMERICAN BUILDER
The Cost FIGURES
FOR THIS HOUSE
ON PAGE

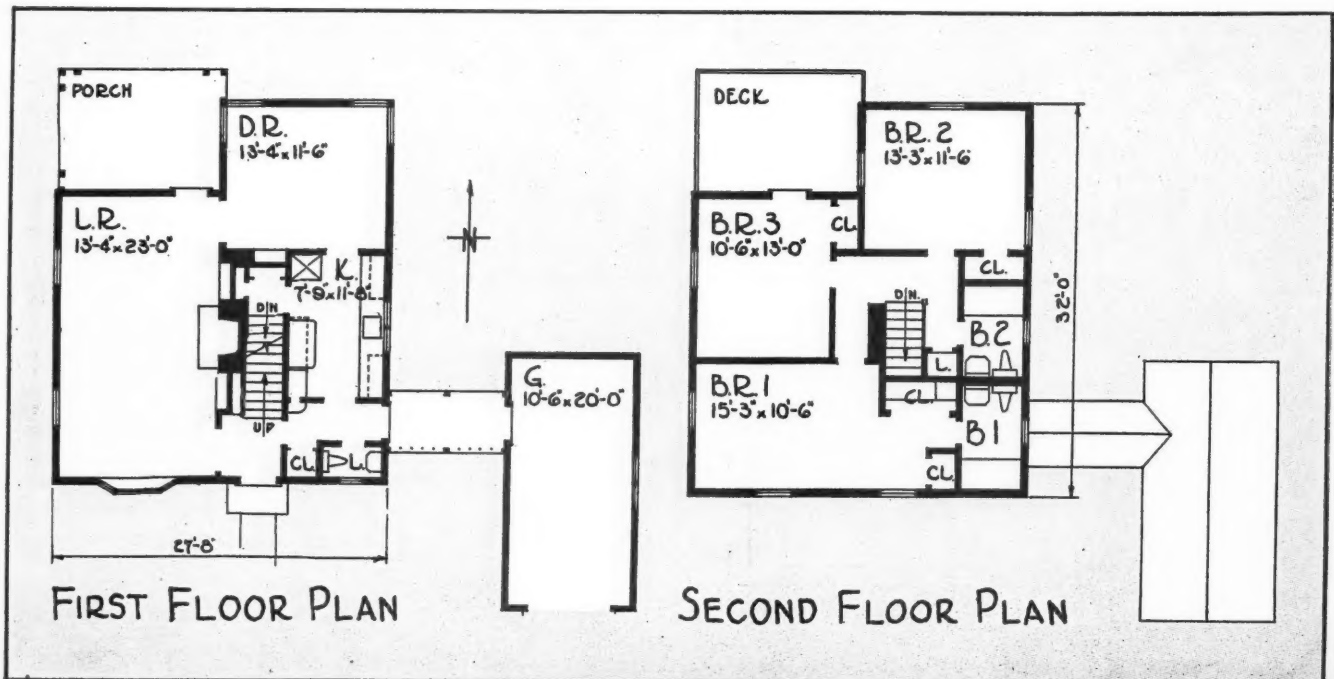


TRIM COLONIAL WITH EXCELLENT 6-ROOM PLAN

Built in Evanston, Ill., L. Morgan Yost, Architect, Wilmette, Ill.

AS AN EXAMPLE of proper space utilization for modern livability, the Colonial house above is outstanding. The plan contains many unusual features, all compactly arranged within a relatively small floor area. Some of these features are the narrow card table closet located off the front hall, a firewood bin opening both to the basement stairs and to the living room, and a telephone passage between the service hall and kitchen plan desk. This

service hall provides good access to the garage, lavatory, guest closet, located as it is between the kitchen and front entrance. The well proportioned dining room and the end of living room with porch overlook the rear. On the second floor there are three good sized bedrooms with ample closet space. The placement of the two baths allows economy of installation. A sun deck over the porch is reached through one of the bedrooms.



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ALL ELEVATIONS of this trim Colonial house have been designed in pleasing proportions by Architect Yost. The garage with connecting passageway gives the view from the front additional width, as seen in the elevation below. This portion of the house was planned for future enlargement at the owner's request; a maid's room or first floor guest room can later be built between the garage and the house, the present first floor lavatory becoming part of a bathroom. The exterior treatment consists of white pine beveled siding with 1x8 flush boards below on front. The lattice design is repeated as a grille over the lavatory window and diamond shaped panes in the front door.

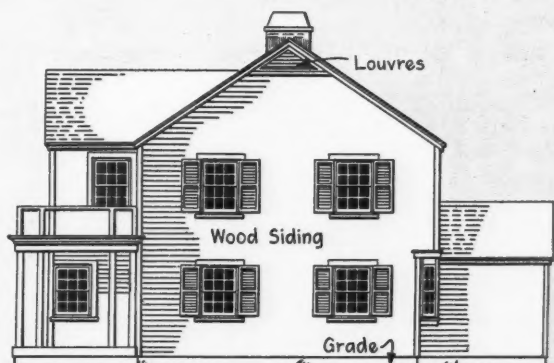
AMERICAN BUILDER
The Cost FIGURES
FOR THIS HOUSE
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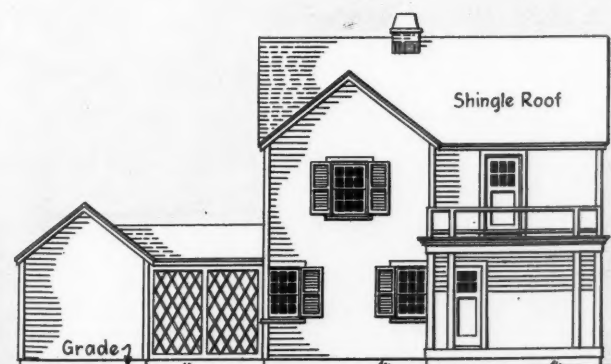
Other design, construction and equipment features are as follows: Compact gas equipped kitchen with Crane sink set between adjoining counter tops, built-in cabinets, Magic Chef range, Electrolux refrigerator, Ilgette ventilating fan and Armstrong linoleum on the floor. The Bryant winter air conditioning system and water heater are also gas-fired. The basement recreation room has a fireplace. Exterior sheathing is Insulite Bildrite board, and interior walls are finished with three-coat plaster on Rocklath. J-M rock wool was used over second floor ceilings. Roof is Flintkote asphalt shingles. Baths have Kohler fixtures and walls finished in Veos tile; a dressing alcove adjoins the master bath. The garage is equipped with an Overhead door.



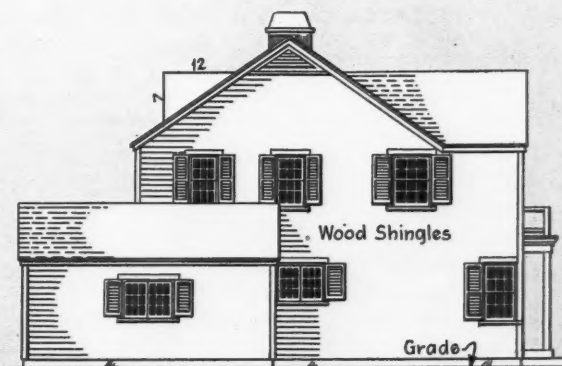
FRONT ELEVATION



LEFT SIDE ELEVATION



REAR ELEVATION



RIGHT SIDE ELEVATION

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The Cost FIGURES
 FOR THIS HOUSE
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CHARM, beauty, comfort are outstanding in this little home—"The Lee"—designed and built by Lee Perry, Architect.

\$40,000 Quality in a \$6,000 House

Lee Perry, Architect Who Turned Builder, Tells
 How He Makes Good Design, Quality Materials
 Sell Homes in the Low-Priced Field



LEE PERRY, president,
 County Housing Corp.

LEE PERRY is an architect who turned builder to prove that quality design and quality construction could be brought successfully into the low-cost field. In his Westminster Ridge development near White Plains, N.Y., he is building charming homes in a well-planned community, ranging from \$5,800 to \$8,500. These homes are as well designed, laid out and built as any \$40,000 home, including such quality features as Bryant gas-fired winter air conditioning, Johns-Manville Rockwool bat insulation, Curtis Silentite windows with Mitertite trim, Lightolier fixtures and brass pipe.

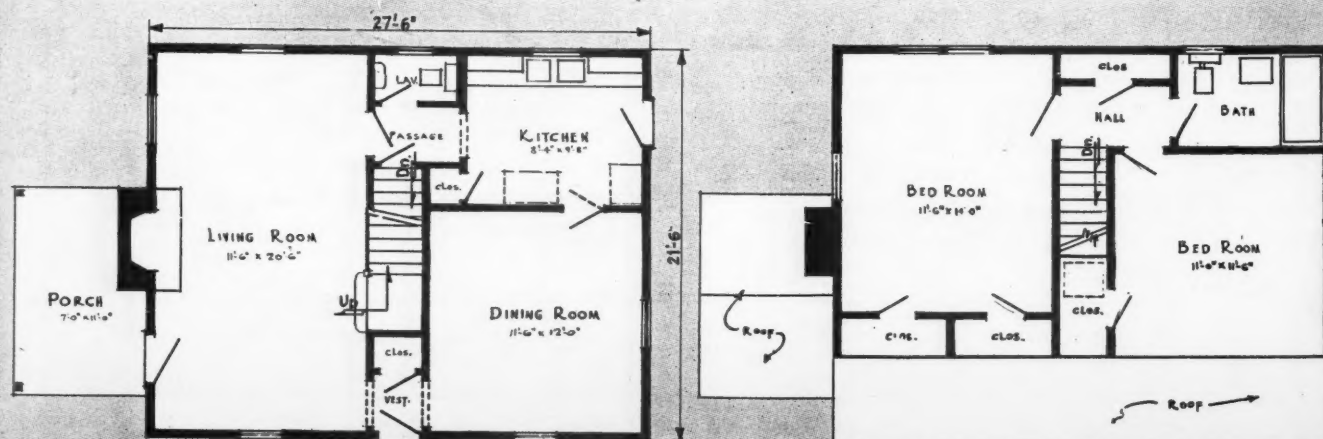
The houses are also of dry wall construction, the in-

terior walls consisting of half-inch insulating board in large sheets as the base for wallpaper. Exteriors are largely of weather resisting cement-asbestos shingles.

Mr. Perry is an architect with more than 15 years experience in which he has designed and built many large and expensive homes. At Westminster Ridge he is demonstrating that the same quality of planning, workmanship and construction can be brought to the low-cost field.

On September 1 when an *American Builder* editor visited the development, 41 houses had been built or were under construction, with sales running well ahead of completed houses. Work on the first houses started

FLOOR PLANS of "The Lee" provide fine exposure, ample rooms, a downstairs lavatory, ample closets.



• SECOND FLOOR •



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"THE GREENFIELD", 5-room house at Westminster Ridge, with appealing architectural style. Exterior is of asbestos-cement shingles.



Photos by JOHN GLASS

last February, so that, considering the "recession," the record is good.

Perry believes that as an architect he is in a strategic position to serve his customers well. He can sketch a plan while talking, and can talk with a sound and authoritative knowledge to prospective buyers. He is able to study each lot separately and design the house to fit it most economically and attractively. The results at Westminster Ridge show this. The houses are attractive from all angles—an especially important item in a hillside development such as this where frequently the downsite of a house is unsightly and mars the entire development. Perry is a man of ideas and is critical both of architects who fail to acquire a practical knowledge of building and of builders who fail to make adequate allowance in their budget for good architectural advice.

"I became convinced that low-cost housing could be made profitable only when it had received the study and consideration given to the most expensive type of home," he declared.

"I can see no reason why the prospective home owner considering a house worth only \$6,000 is not entitled to as much architectural consideration as though he were planning a house costing \$40,000.

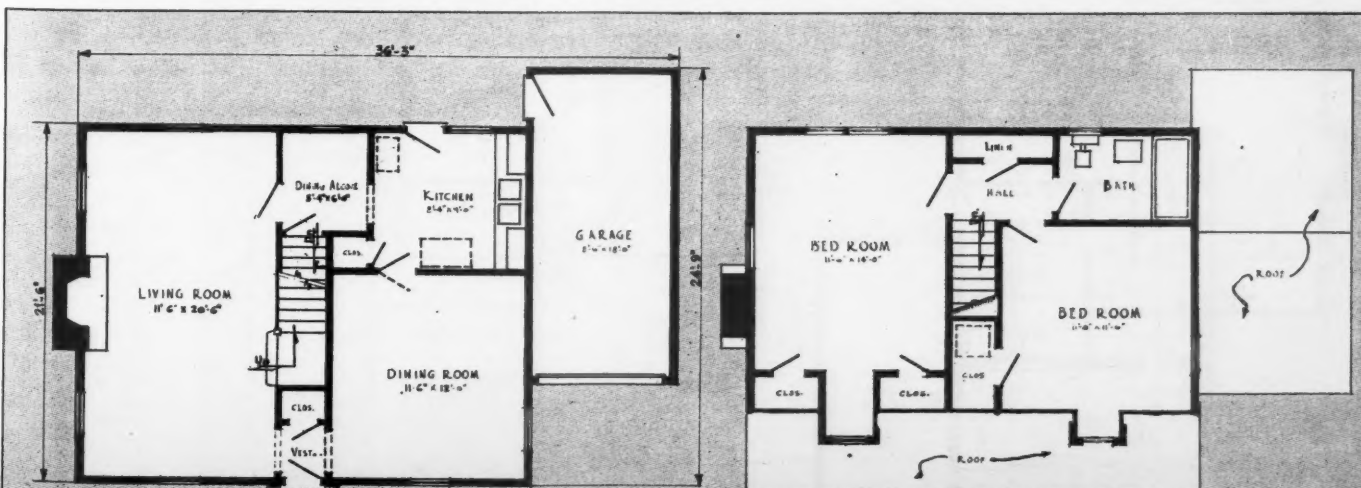
"Coupled with the fact that these basic thoughts are fundamental, it is equally true that most builders are not aware of them. I found the only way I could achieve the results that I desired was to become both architect and builder in one, the results of which would be amazingly different from any of those achieved by others.

"That I have been justified in my conclusions is evidenced by the remarkable success we are enjoying at Westminster Ridge, White Plains.

"Our aims are simple. Of forty houses erected in six months, each one is different and yet each one can boast of the finest materials nationally advertised, welded together into a plan that has been given considerable thought as to design, orientation, equipment and construction. Most of our sales have been for houses to order and yet each prospect virtually becomes an architectural client, and all of his whims are catered to, however small the house may be.

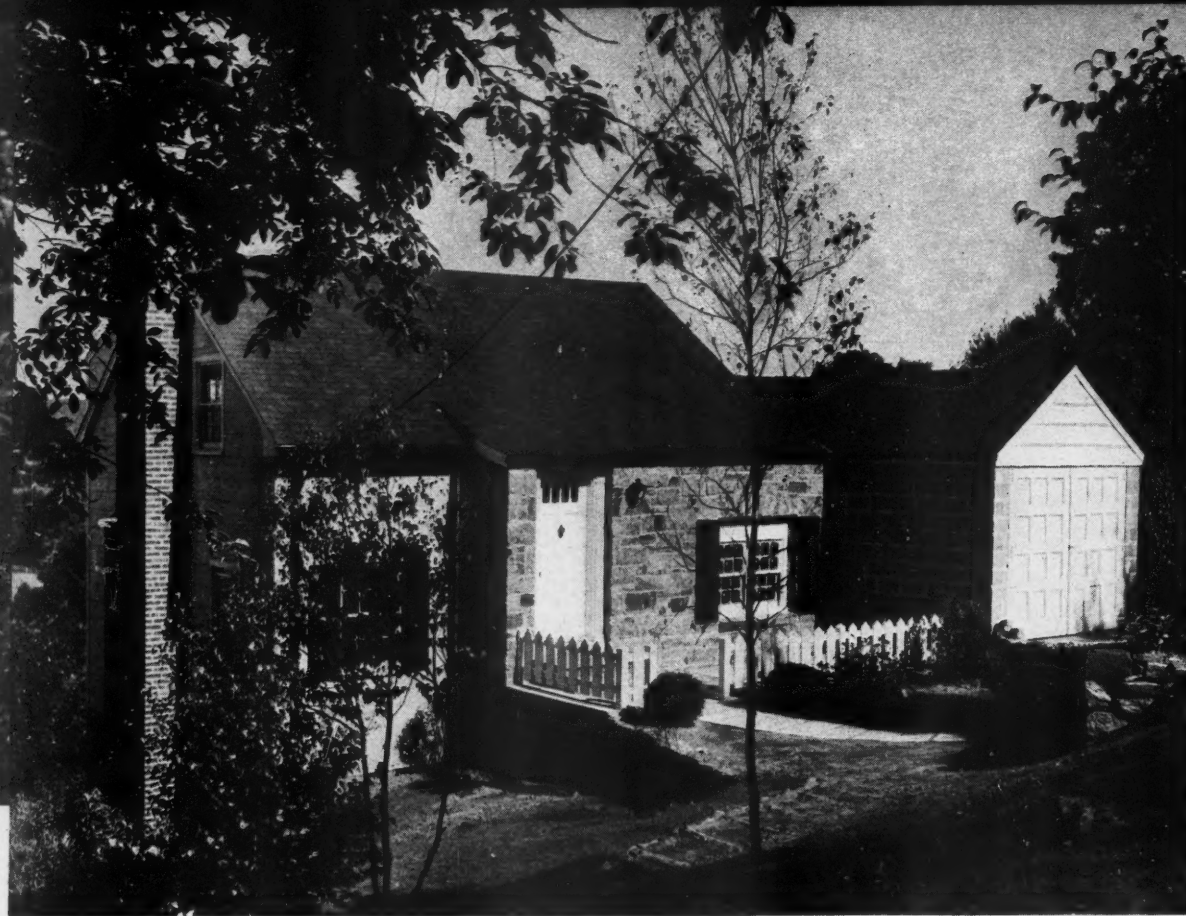
"Not that I feel that architecture is the all-important phase of development work. My training as an architect forces me to insist upon the full coordination and organization of all the parts that go to make up the whole. Just as the proper cement mixture must be stated in a specification, so the correct form letter must be mailed

FLOOR PLAN of "The Greenfield" includes an 11' 6" x 20' 6" living room also dining alcove, attached garage, well equipped kitchen.



AMERICAN BUILDER
The Cost FIGURES
 FOR THESE HOUSES
 ON PAGE

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"THE WESTMINSTER" is specially designed to fit into the wooded hillside. House has automatic gas heat.

to the prospect. Neglecting the necessary sales promotional work in a development is comparable to the omission of the footings in a building. There can be no compromise in these matters: each has its own importance and must be included in its proper sequence. It is our plan to develop such an organization so that it can function successfully in a sphere that will not be restricted to one location.

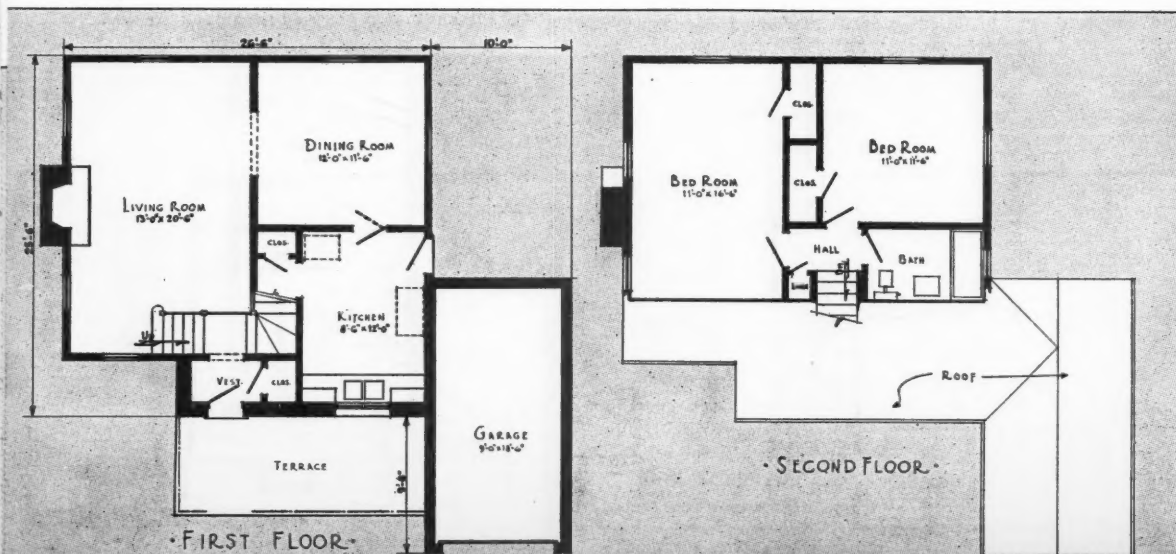
"Our program for this year calling for the completion of seventy-five homes in Westminster Ridge, White Plains, and nine in Pleasantville, has thus far been strictly adhered to. I can see no reason why an organization such as ours cannot expand during the coming years to include several developments progressing simultaneously in different communities."

In many ways, the Westminster Ridge houses illustrate the trend towards better-built homes at lower cost that *American Builder* has been publicizing in recent issues. While the price range would not be classed "low-cost" in some parts of the country, in expensive Westchester

County it definitely is. Perry's advertising features the fact that these houses can be purchased for as little as \$598 cash and \$48 per month.

Perry is doing everything possible to make home ownership easy and attractive. The houses are complete in every detail and ready to move into. A small lake and playground are included in the tract, and streets are laid out in sweeping curves adapted to the rolling countryside.

Perry states that he selected automatic gas heat because he felt it would be a valuable sales help inasmuch as most people associate this type of "luxury heating" with more expensive homes. Cost of operation has been carefully worked out and, due to the sound construction and thorough insulation, will be low. An interesting item in connection with the use of the gas heat was the economy made possible in chimney construction. Where there is no fireplace, chimneys consist of a six-inch circular terra cotta flue surrounded by standard 8 by 8 by 16-inch concrete blocks. Only four blocks are required for a course. Space between the blocks and the flue is filled



STEPS lead from the vestibule into the large living room with exposures on three sides. Garage is convenient to road.

"THE WILLIAMS-BURG" is of simple design, with an attractive entrance featuring built-in seats. There is a porch at rear.



with cement mortar. The result is a substantial and satisfactory chimney that is economical to build.

An aggressive advertising and promotion campaign is being carried on. In this respect Perry has secured the cooperation of the American Gas Association's Home Appliance Planning Bureau. Two demonstration houses were formally opened to the public September 15, and this was made the occasion for extensive newspaper advertising and promotional literature, financed cooperatively by manufacturers of equipment and materials.

Construction and specification details receive unusual attention for houses in this price class. The following items indicate the extent to which the builder has gone to insure a quality house in the low-price field:

FOUNDATIONS—12-in. concrete blocks, water-proofed.

LUMBER—Well-seasoned, No. 1 quality grade and trademarked.

HEATING—Bryant gas-fired forced air unit, 85,000 B.T.U. input per hr. Minneapolis-Honeywell controls.

HOT WATER—Lovekin and AGP "Dictator" gas-fired hot water heaters.

ELECTRIC DEVICES—Fuse box and electric devices by Metropolitan Devices Corp., Brooklyn.

INSULATION—J-M semi-thick Rockwool bats.

WINDOWS—Curtis Silentite prefit, weatherstripped.

TRIM—Curtis narrow Colonial style Miterite window and door trim.

ROOF SHINGLES—Johns-Manville asphalt shingles.

COPPER AND BRASS—Revere Brass pipe; copper flashing, eaves and downspouts.

PLUMBING—Standard Sanitary plumbing fixtures, laundry-type kitchen sink, Mueller seat.

LIGHTING FIXTURES—Colonial style lighting fixtures by Lightolier Co.

LINOLEUM—Congoleum linoleum, kitchen and bathroom floors and walls of bathroom.

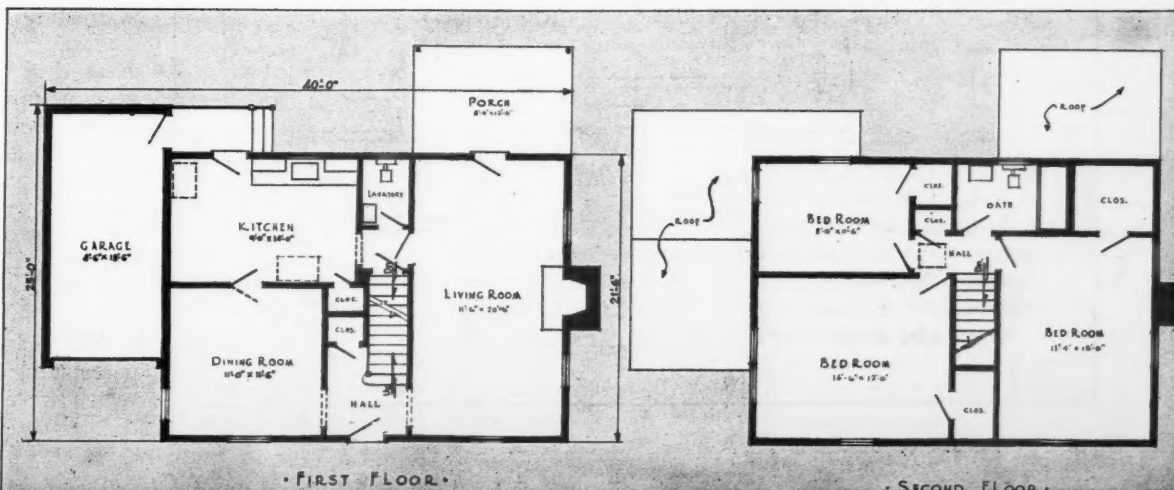
EXTERIOR WALLS—Johns-Manville Cedargrain cement-asbestos shingles.

BATHROOM MEDICINE CABINET—Columbia Metal Box Co.

WINDOW GLASS—American Window Glass Co. "Lustraglass."

RANGE—"Magic Chef" Gas Range.

SIX ROOMS, bath, lavatory and attached garage are included in this plus value plan for "The Williamsburg" house illustrated above, designed and built by Lee Perry at Westminster Ridge, N. Y.





PRESIDENT ROOSEVELT'S COTTAGE now nearing completion by Adams-Faber Company, New Jersey home builders. Legend on drawings reads, "Franklin D. Roosevelt, Architect; Henry J. Toombs, Associate."

Building a House for F. D. R.

Adams and Faber, New Jersey Residential Builders, Find the President Keenly Interested in Home Building and Construction Details

By JOSEPH B. MASON



PAUL D. ADAMS



JOHN H. FABER

Builders of President Roosevelt's Cottage

PAUL D. ADAMS and John H. Faber have been building houses for 15 years and have had some very interesting customers. But on July 2 this year they acquired a new customer who outranked all others in interest—the President of the United States, Franklin D. Roosevelt.

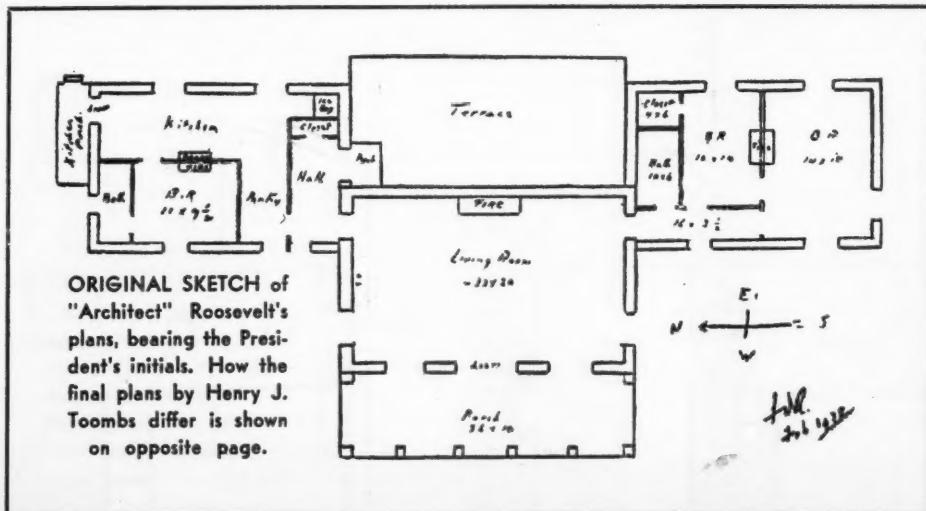
The Adams-Faber Company put a construction crew at work on the President's home early in July and were expected to finish it by November 1. They were low bidders out of a total of six contractors who were invited to submit bids on the detailed plans drawn by Henry J. Toombs, architect of the Warm Springs Foundation at Warm Springs, Ga.

Final negotiations were made directly with the President and were conducted in the little Ford car he uses to drive around his Hyde Park, N. Y., estate. They found him a practical, well informed customer who checked details and costs carefully and who displayed a considerable knowledge of building methods. According to Adams and Faber, the job has

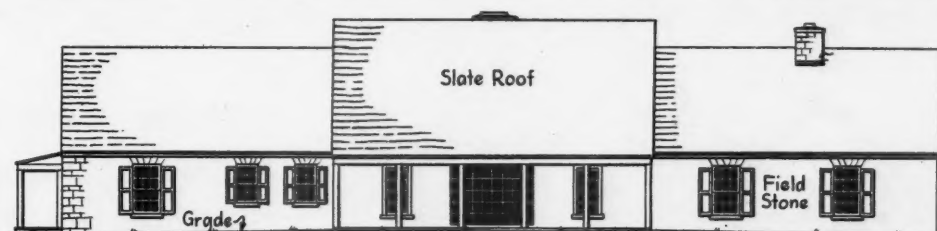
gone smoothly, the checks have come in regularly on time and the job has been one of the most interesting they have ever undertaken. The President took a great deal of interest and personally supervised the work.

The house is a five-room, solid stone, one-story Dutch cottage located on a wooded knoll above the Hudson River on a tract of land recently purchased by the President, adjoining the family home at Hyde Park.

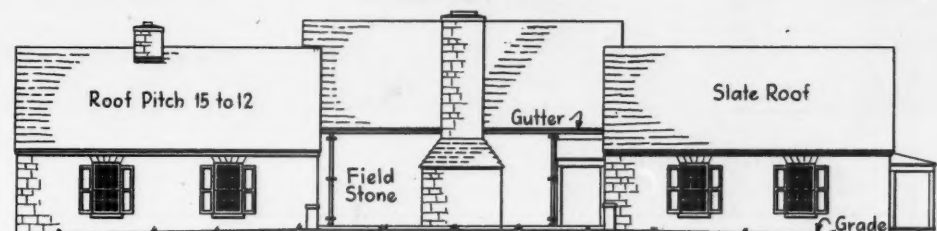
The President himself drew painstaking sketches of the plan which were then reviewed and



Complete Details of President Roosevelt's "Hideaway" Cottage

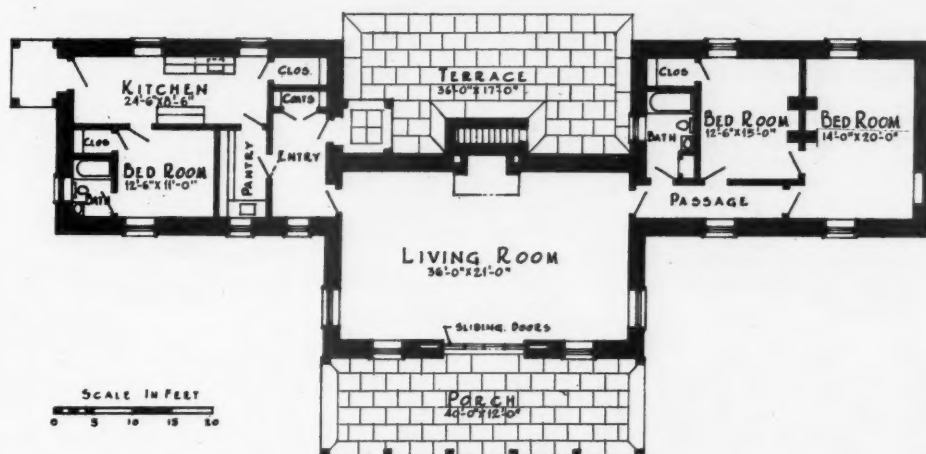


WEST ELEVATION

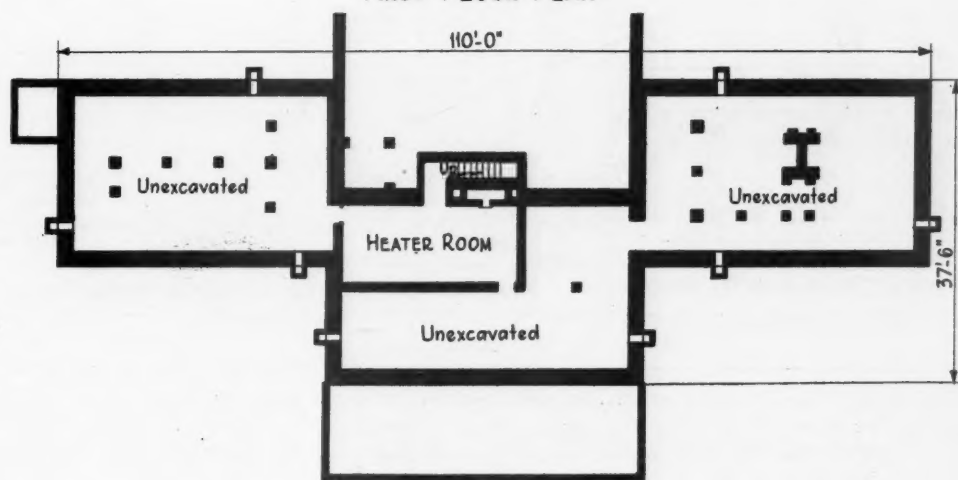


EAST ELEVATION

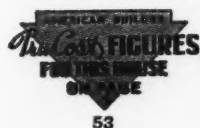
DETAILED PLANS of President Roosevelt's cottage by Henry J. Toombs, Warm Springs, Ga., architect. The walls are of 18-inch solid stone. Basement steps are built into huge chimney behind fireplace. The design is traditional one-story Dutch Colonial.



FIRST FLOOR PLAN



BASEMENT PLAN



modified somewhat, and put in the completely detailed form shown on the accompanying pages by Architect Henry J. Toombs. On the perspective drawings is lettered the legend, "Franklin D. Roosevelt, Architect; Henry J. Toombs, Associate."

Comparison of the President's initialed sketch with the final drawings published herewith, show only slight changes. Architect Toombs corrected the placing of the bedroom windows to provide better space for beds, im-

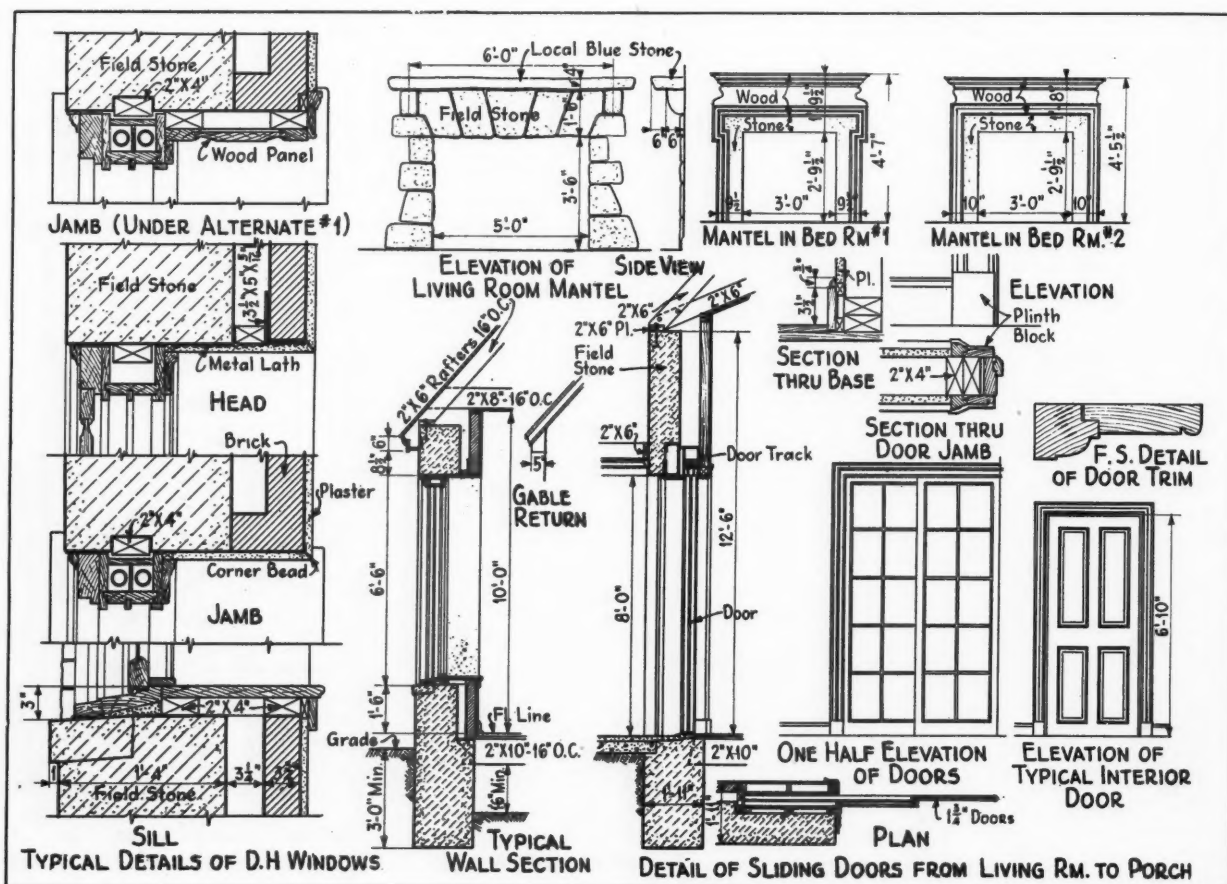
proved the shape of the bedrooms, took the icebox out of a remote corner of the kitchen, reduced the size of the servant's bathroom to make space for a closet, and made the living room three feet longer.

The house was planned as a hideaway or retreat for the President and will not have a telephone. It is not expected that it will be used much in winter, although it is equipped with a Holland Warm-Air furnace with an oil burner.



NORTH ELEVATION

Stone Fireplace, Sliding Doors, Permanent Construction Featured in These Authentic Details of President Roosevelt's New Hyde Park House



PRESIDENTIAL DETAILS—interesting construction details of the President's house are given above, including the massive stone fireplace, sliding living room doors and a typical wall section. House is being built by Adams-Faber Company, builders of Montclair, N. J., and White Plains, N.Y., and residential specialists with a good number of both large and small homes to their credit.

Construction is of a very substantial nature, including two-foot concrete basement walls and 18-inch solid stone exterior walls, with a three-inch air space, furred out with 2 by 4's upon which Rocklath and plaster are placed. The stone used is native stone gathered by the farm hands from the Hyde Park estate. The house has a blue-black asphalt shingle roof, copper and brass piping, Crane and Standard plumbing fixtures and Lightolier lighting fixtures. An interesting feature of the design which is carefully detailed in the accompanying plans is the sliding French doors which lead from the living room out to the big front porch, which has a magnificent west view over the Hudson River to the Catskills.

The Adams-Faber Construction Company have specialized principally in large residences but, like most residential builders in recent years, have also done a large number of smaller homes. Paul Adams, president; and John Faber, secretary-treasurer, are graduate civil engineers from Princeton University, 1915. They maintain their main office in Upper Montclair, N.J., and have a branch office at White Plains, N.Y. At the present time they have about 50 men on the payroll, which has fluctuated from a high of 200 to a low of two in the past 15 years. In charge of the construction of the President's house was Horace Noyes, construction superintendent who has been with the firm since 1925.

ProCost

Figures for American Builder Homes

HOME DESIGNS ON PAGES AS NUMBERED

Unit of Construction	Nov., 36	Nov., 37	Nov., 38	Nov., 39	Nov., 42	Nov., 43
Basement Walls, lin. ft.	143	142	136	161	110	124
Trench Walls, lin. ft.	56	140	88	109	42	138
Basement Floor, sq. ft.	1208	1160	1077	1070	720	837
Garage Floor, sq. ft.	368	440	370	440	171	400
Excavation per ft. deep, cu. yds.	54	59	51	56	34	46
HoltRate on following items	2.014	2.438	2.324	2.380	1.666	2.337
Outside Walls, squares	25.7	30.4	33.1	38.4	24.8	32.1
First Floor, squares	7.5	11.6	11.3	11.3	7.2	8.4
Second Floor, with Fin. Flg., sqs.	9.1	9.9	11.2	10.7	7.2	10.7
Second Floor, without Fin. Flg., sqs.	2.6	0	0	0	0	0
Ceilings, sqs.	15.8	16.0	14.0	15.7	8.9	12.4
Roof Pitch, inches rise per ft. run	12"	10"	9"	12"	10"	10"
Roof, squares	22.2	21.9	19.7	22.0	13.8	17.1
Hips and Valleys, lin. ft.	60	85	0	64	8	0
Cornice, type and lin. ft.	C & F-256	8"-196	6"-102	4"-258	C & F-194	C & F-210
Cornice, type and lin. ft.	0	0	12"-120	0	0	0
Partition, lin. ft.	253	272	313	246	157	253
Inside Finish OS Walls, lin. ft.	275	310	306	353	244	315
Front and OS French Doors, opgs.	3	2	2	3	3	2
Rear and Grade Doors, opgs.	2	3	1	2	2	3
Garage Doors 8' wide	2	2	2	2	1	2
Inside Doors and Cased Opgs., opgs.	17	23	24	23	14	22
Windows and Casements, opgs.	22	31	24	27	25	30
Gable Sash and Louvers, opgs.	0	0	2	1	0	3
Chimney, lin. ft.	36	36	38	36	38	38
Main Stairs	1	1	1	1	1	1
Porch Floor, sqs.	0	3.7	1.0	0	.7	3.1
Porch Ceiling, sqs.	0	3.7	1.0	0	.7	3.1
Porch Beam, lin. ft.	0	57	29	0	21	77
Porch and Bal. Post and Newels, number	0	b	6	0	2	7
Porch Roof, sqs.	0	3.9	1.4	0	0	4.6
Porch Cornice, lin. ft.	0	60	12"-33	0	0	86
Porch and Deck Rail, lin. ft.	56	b	0	0	0	0

HOME DESIGNS ON PAGES AS NUMBERED

Unit of Construction	Nov., 44	Nov., 46	Nov., 47	Nov., 48	Nov., 49	Nov., 51
Basement Walls, lin. ft.	120	98	95	104	105	333
Trench Walls, lin. ft.	111	25	43	50	91	124
Basement Floor, sq. ft.	770	585	563	642	666	2576
Garage Floor, sq. ft.	232	0	190	200	180	0
Excavation per ft. deep, cu. yds.	41	27	28	31	35	117
HoltRate on following items	1.888	1.205	1.310	1.263	1.611	0
Outside Walls, squares	30.2	16.6	18.7	21.2	22.1	44.0
First Floor, squares	7.7	5.9	5.6	6.4	6.7	25.8
Second Floor, with Fin. Flg., sqs.	7.9	4.7	4.3	4.5	6.7	0
Second Floor, without Fin. Flg., sqs.	0	1.2	1.3	1.2	0	0
Ceiling, sqs.	7.9	5.9	7.5	8.4	8.6	25.8
Roof Pitch, inches rise per ft. run	10"	12"	12"	12"	9"	13"
Roof, squares	13.8	8.1	10.8	12.1	12.2	47.4
Hips and Valleys, lin. ft.	34	0	20	17	0	0
Cornice, type and lin. ft.	C & F-212	C & F-144	6"-140	C & F-196	C & F-171	C & F-480
Cornice, type and lin. ft.	0	0	C & F-111	0	0	0
Partition, lin. ft.	182	136	147	117	188	148
Inside Finish OS Walls, lin. ft.	240	160	184	203	235	333
Front and OS French Doors, opgs.	3	2	1	1	2	5
Rear and Grade Doors, opgs.	2	1	2	1	2	1
Garage Doors 8' wide	1	0	1	1	1	0
Inside Doors and Cased Opgs., opgs.	18	16	15	12	18	15
Windows and Casements, opgs.	23	13	15	14	16	16
Gable Sash and Louvers, opgs.	0	0	2	0	3	4
Chimney, lin. ft.	38	32	32	26	34	32
Main Stairs	1	1	1	1	1	0
Porch Floor, sqs.	2.0	.8	0	0	1.5	11.2
Porch Ceiling, sqs.	2.0	.8	0	0	1.5	5.3
Porch Beam, lin. ft.	47	25	0	0	54	84
Porch and Bal. Post and Newels, number	9	2	0	0	7	10
Porch Roof, sqs.	2.4	1.3	0	0	1.8	a
Porch Cornice, lin. ft.	50	32	0	0	52	a
Porch and Deck Rail, lin. ft.	27	25	0	0	8	0

(a)—Included with main roof and cornice. (b)—Omitted in HoltRate on account of being so special.

Necessary Home Equipment, Fixtures, Accessories, Extras

Since the above surveyed items cover only the actual superstructure of the house, you should figure and add the following items as specified or wanted (and don't forget Overhead and Profit):

Areaways, Cellar Sash, Coal Chute, Basement Partitions & Doors, Attic Flooring, Attic Stairs, Blinds, Gutters & Downspouts, Fireplaces,

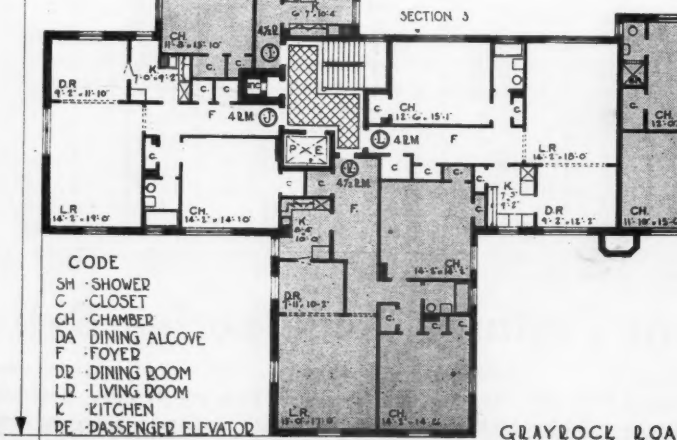
Built-in Cabinets, Rail & Newels for Stairs and Stair Well, Beamed Ceiling, Weatherstrips, Tile Work, Plumbing, Heating & Air Conditioning, Lighting, Terraces, Patio Walls or Fences, Sidewalks including Porch Steps, Driveways, Unattached Garages. Also add for painting and-decorating if not included in Unit Costs.

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GRAYROCK ROAD



"Planned for Gracious Living"

FLOOR plans of the large new Scarsdale Manor Apartment project in Westchester County, New York, recently completed by Charles Newmark, builder, show how greatly apartment planning has changed in the last few years.

Due to the irregular "U"-shaped arrangement with projecting wings, there is excellent cross ventilation and double exposure in practically all rooms. Analysis of the plan shows the building is made up of a series of crosslike units similar to those described in detail in the June, 1938, issue of *American Builder*. The self-service elevators, stairways, incinerators and other utilities are all grouped in the center of the cross.

The plan shown below is the north unit of the project. The main entrance is in the inside of the court. Floor plan as shown is viewed from the rear, which is opposite

to the garden view seen in the accompanying photograph.

Under the rear portion of the building, garage space for 225 cars is provided—a feature considered highly important by the owners, as they found that one of the first questions asked by prospective tenants was, "How far must I walk to the nearest garage?" The tenants will be able to reach their apartments from the garage without leaving the building.

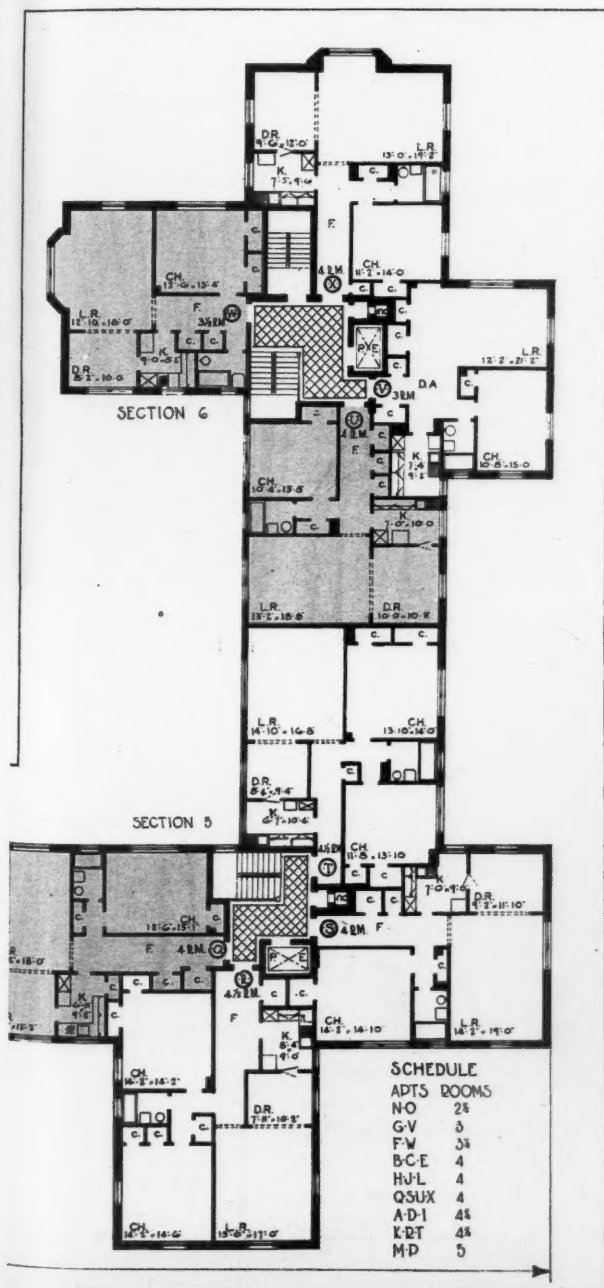
Scarsdale Manor is a limited-dividend project such as provided for under Section 207 of the amended National Housing Act. It is financed by long-term mortgages placed by the Prudential Life Insurance Company which are insured by the FHA. The first unit built carries a mortgage of \$775,000 and the second unit a mortgage of \$620,000. The rental scales are low for a community of this type, averaging \$19.25 per room. The published scale is as follows:

2½ rooms from \$42.50	4 rooms from \$67.50
3 rooms from 60.00	4½ rooms from 80.00
3½ rooms from 67.50	5 rooms from 92.50

Buildings are firesafe, reinforced concrete construction with brick walls. They are equipped with the latest in comfort and convenience equipment. Kitchens have Norge refrigerators, Royal Rose kitchen ranges, United Metal Box Company clothes driers, Beautyware laundry-type sinks by Briggs Manufacturing Company. Bathrooms also feature Briggs Beautyware fixtures in colors.

Complete disposal of garbage and waste is provided for by Sargent incinerators opening off small closets placed in the halls. Mail box and call buzzer equipment was manufactured by the Auth Electrical Specialty Company of New York. Elevators for the seven-story structure are of the latest self-service type manufactured and installed by Otis Elevator Company. Russwin hardware is installed throughout.

Other specifications include Lone Star Incor cement for masonry, Moore paint, United Metal Box medicine cabinets, copper water tubing and wrought-copper fittings by Wolverine Tube Company and Northern Indiana Brass Company.



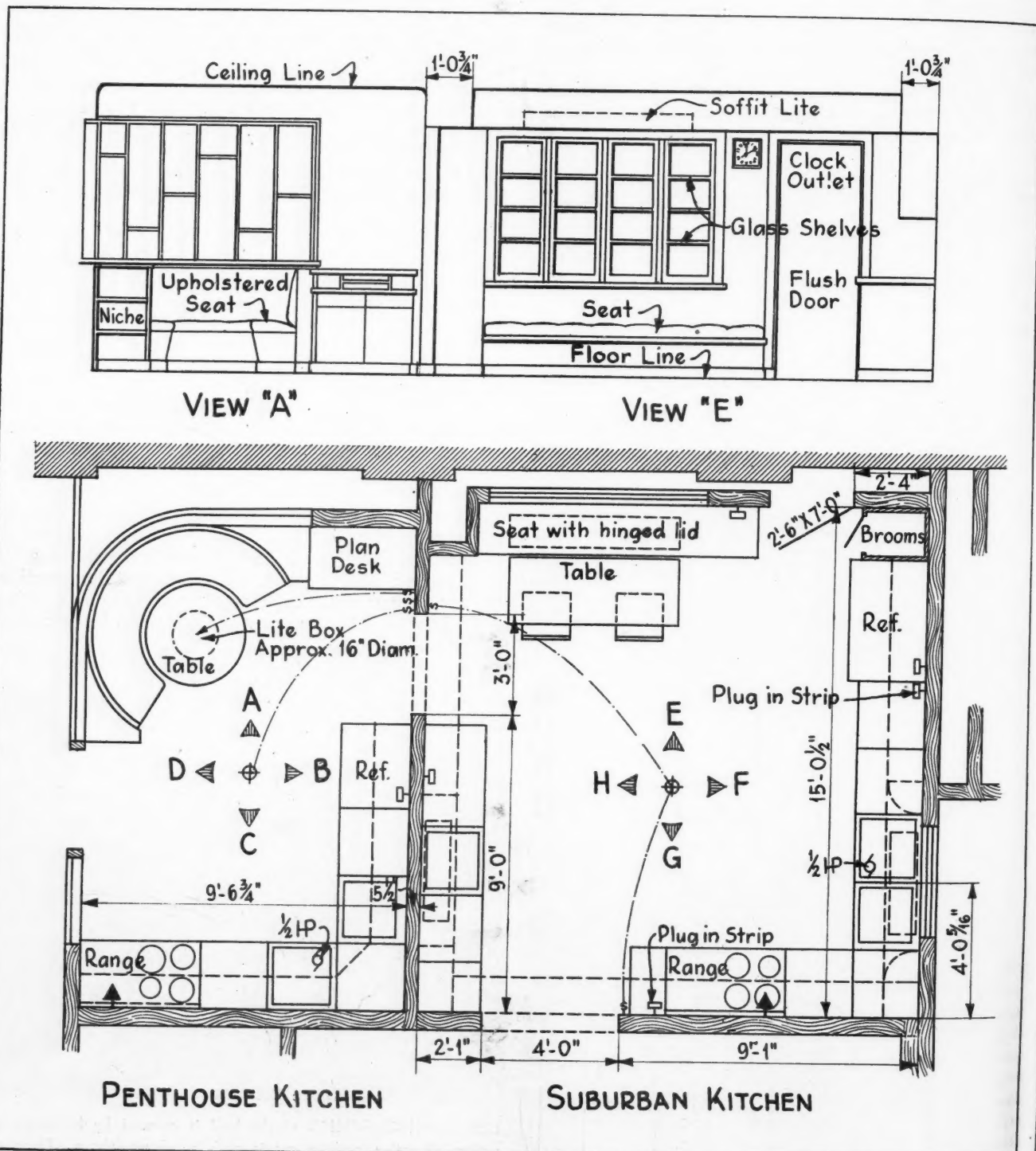
LESS THAN ONE-THIRD of the land is covered by buildings, providing attractive parklike courts such as shown above. Floor plan consists of a series of cross-type units providing excellent cross ventilation and double exposure in all rooms. View of floor plan at left is from the rear, while the entrance view above was taken from the front.

CONVENIENCE EQUIPMENT, BUILT-IN SEATS, ARE FEATURED IN Two Modern Model Kitchens

IN NO part of the house has convenience equipment made greater progress than in the modern kitchen. It is not only efficient, practical and step-saving but infinitely more attractive and livable than the kitchen of even a few years back. Illustrated with this article are

photographs and plans of two particularly interesting model kitchens recently built to show the latest progress in this line by the General Electric Institute at Nela Park, Cleveland.

A large and a small kitchen are shown—the Suburban



BUILT-IN DETAILS—How modern equipment and such attractive features as a circular seat and the upholstered window bench illustrated in accompanying photos are constructed, is shown above. Upholstered seat is a feature that is growing in popularity for kitchens and dining nooks and is now being used by many builders. Plans also feature built-in lighting and efficient unit kitchen equipment.

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kitchen being big enough to provide space for an upholstered seat and table for "quick snacks" and also for laundry equipment and a place for the children to play. The Penthouse kitchen, on the other hand, is very compact, but still includes an unusually attractive circular window upholstered seat that serves as a dining nook. Both of these kitchens, with construction information, are detailed in the accompanying plans.

The Suburban kitchen illustrates an important feature in kitchen planning—combining in one room the facilities of kitchen, nursery, breakfast room and laundry. The kitchen cabinets, stove and refrigerator are grouped in an L shape at one part. Another part of the room is a laundry center with built-in laundry featuring water heater, clothes washer, disappearing wringer, tub and ironer. This space may also be used for canning. Another part of the Suburban kitchen is used as a play center for the children. The dining center near the window is an important feature, with a comfortable built-in upholstered bench which provides storage space for toys underneath.

The Penthouse kitchen is ultra-modern but practical in its efficient equipment and layout. The kitchen center is an L-shape arrangement at one end of the room, while at the opposite end is the built-in circular seat for dining



THE UPHOLSTERED SEAT (fully detailed in accompanying plan, View "E") is an important feature of this modern electric Suburban kitchen, and is particularly handy for the housewife when friends drop in for a "quick snack."

or other purposes. Translucent wall panels of Textolite are provided behind the working surfaces and are lighted from behind. A planning desk is placed at the opposite end of the room near the upholstered seat.

All of which goes to show that the kitchen in the house of today represents a remarkable improvement over those of the past.

THIS ultra modern "penthouse" kitchen features an attractive circular window, with upholstered seat. Construction details are shown on opposite page, View "A". The circular seat adds beauty and convenience to the kitchen and saves space.



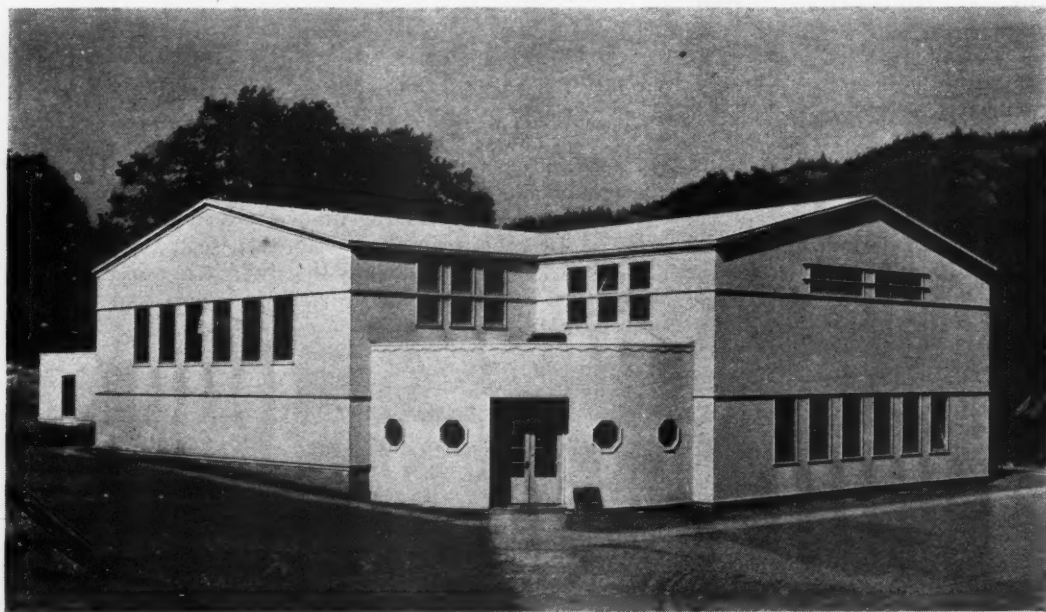
Auditorium Uses New Type Construction

Plywood Trusses and Panel Units in White Salmon, Wash., Structure Point New Ways to Building Economy

THE TYPE of construction utilizing plywood extensively, which may point to that which is ahead, is the feature interest of a grade school combination gymnasium auditorium building recently completed at White Salmon, Washington. The structure, with a floor plan in the form of a cross composed of a large center unit and four adjoining wings, has a framework composed of glued-up stress-covered rigid bent trusses enclosed with sidewall and roof prefabricated sectional panel units. The trusses and all panel units are almost entirely of Douglas Fir Plywood—85% of the material required for the building was plywood. The Speedwall Company, Seattle, Washington, prefabricators of plywood buildings, inspired the design and engineering and acted as general

contractor for the building. Mr. Walter H. Rothe, Yakima, Washington, was the architect. The construction principles are somewhat similar to those used on structures by the Forest Products Laboratory, Madison, Wisconsin.

The building was originally designed to be built with conventional frame construction using 2x6" studs with shiplap sheathing and conventional siding. The roof was to be carried by light "A" trusses, and the interior was to be sealed with common matched boards, while the roof was to be composition over sheathing, and ½ fibre board insulation. However, when plans and specifications were submitted for bids, it was found that available funds were insufficient. At this juncture the Speedwall Com-



SCHOOL gymnasium and auditorium in White Salmon, Wash., is designed to serve its combined purposes at lowest construction cost.



INTERIOR of the structure offers efficient, usable cubage together with good acoustics, low heating costs.

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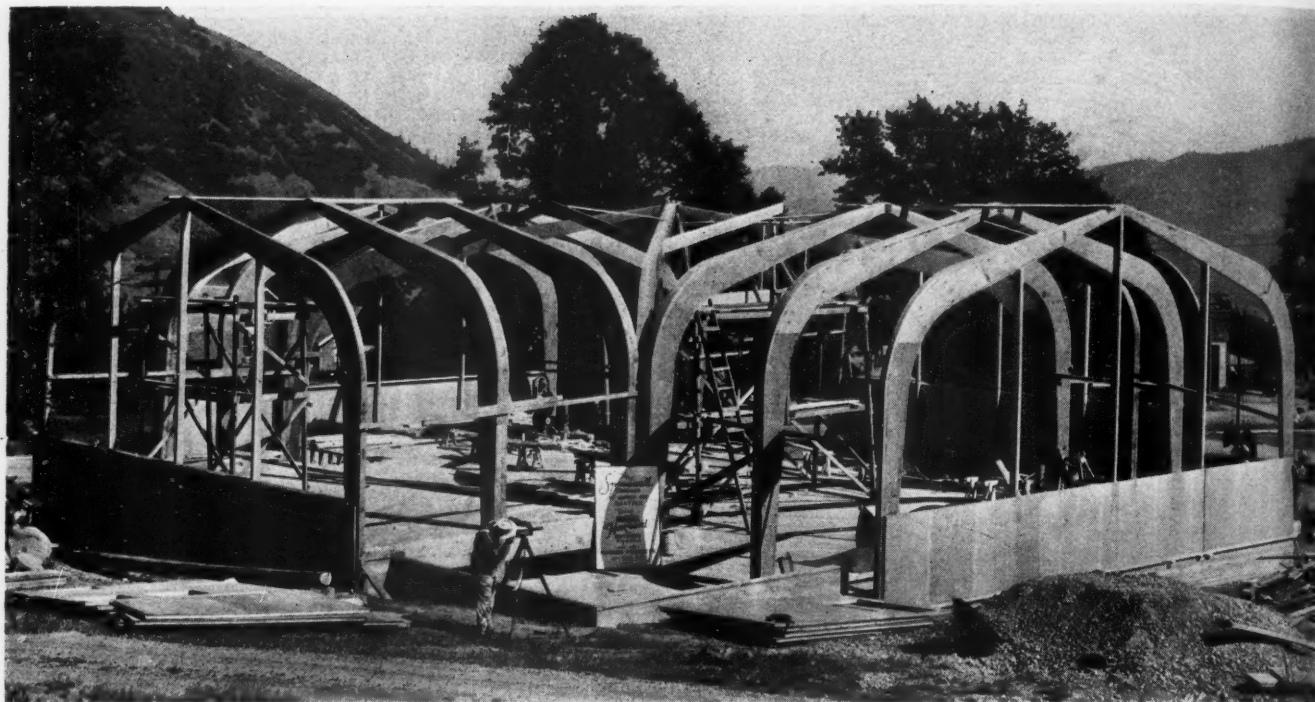
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pany submitted preliminary designs of a structure of equal capacity but of better cubic utilization, and a more rational definition of the uses to which it was to be put, but yet at a price within the budget of the school authorities. Final plans and specifications were subsequently approved, and ninety day completion date set.

The framework of the structure is composed of twelve sets of rigid bent arches of 43 ft. span and two sets of arches of 61 ft. span resting on concrete footings. Head clearance in the gym is 20 ft. at apex of center dome, and the ridge of its roof is carried level on each of the wings. Steel tierods under the floor bind arches at the footings to overcome outward thrust. Three sets of arches are used on each of four wings that adjoin the 43 ft. central square, and two sets of arches support the central cell. The legs of all arches are 20 ft. in length and are identical in construction and dimension. Only the arms of the two sets for the central dome are extended to provide greater span. Fabrication and erection of trusses were simplified through duplication. Fixed roof tree plates, purlins, or structural ties, were omitted from the frame, only temporary ties being used, as this permanent function is performed by the closure panel units.

Construction of the Trusses

While the footings were being poured and the closure units fabricated, trusses were constructed. The plywood cores of the bents were laid out having the desired contour to act as the form to which the stressed laminations of solid strips were applied. The cores consisted of laminated segments, with joints staggered on adjoining layers, of 9/16" rough sheathing grade Harbord fir plywood. Four layers of 9/16" clear Douglas Fir laminations were used for the top, or tension course, with two layers on the bottom, or compression course, of each bent. All joints in the laminations were scarfed. Each layer consisted of 9/16 x 4" and 9/16 x 6"—the wide and narrow strips alternating in adjoining laminations. Laucks' self-bonding glue was used for gluing both cores and stressed coverings.

Nails and clamps were used to make contact while the glue set. The design of the trusses was engineered by the Speedwall Company after exhaustive tests over a

ABOVE: Stressed cover laminated plywood rigid bent framework of the auditorium as erected has great loading capacity. Below: In the trusses, joints of the laminated plywood core are staggered; generous nailing supplied pressure while self-bonding glue set. Layers of stressed covering then are applied to the core.



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considerable period. Many of the tests were conducted in conjunction with the Laucks Testing Laboratories and/or the Forest Products Laboratory of the University of Washington. For example, a set of bents constructed similarly to those later used on the White Salmon job, with a span of 43 ft. and height of 25 ft., were set up and tested with the equivalent of a 60-pound per square foot of roof load. The same bents were later loaded to a total load of 40,000 pounds, with no indication of failure.

Erection of the Trusses

Half members of the trusses were easily raised on the footings with a manually operated hand winch, and fixed to the opposing half member with connectors and steel gussets. The tie rods were then inserted, and temporary bracing to the ground supported starting trusses until other units were in place. At the four corners of the central cell, three truss members converge on a single footing. The two outer members form a 90° angle and join with others from adjacent corners to form the first arches for adjoining wings. The four center members of the corner trios bisect the 90° angles and join overhead at the apex of the central cell to form a rather flat dome consisting of four quarters. To this framework was applied the non-loadbearing sidewall and roof units of standardized design.

The schedule of sizes of closure units was compiled, and the fabrication done in the Seattle factory some 300 miles from the job. The units were held to dimensions that in height conformed, in the sidewall units, to the rustication courses, and of a width to permit easy erection by four men. The units were constructed on the stressed covering principle, and with $\frac{7}{8}$ x $1\frac{3}{4}$ " clear Douglas Fir horizontal plate-like members and vertical spacers of same dimensions spaced on 16" centers, had exterior covering of 5/16" unsanded SUPER-Harbord and 5/16" unsanded Harbord interior lining—the plywood being glued to spacing members with Laucks' self-bonding glue which was set under pressure of nails. Expanded vermiculite or rock wool batts provided the insulation and contributed to fire resistance. (As to fire resistance: Wall sections rock wool insulated were tested by exposure to fire for 1½ hours without failure.) The insulation was placed in the units as they were shop fabricated. Provision for unit panel flush joints was made in the design, the details of which are described later.

Application of Wall and Roof Sections

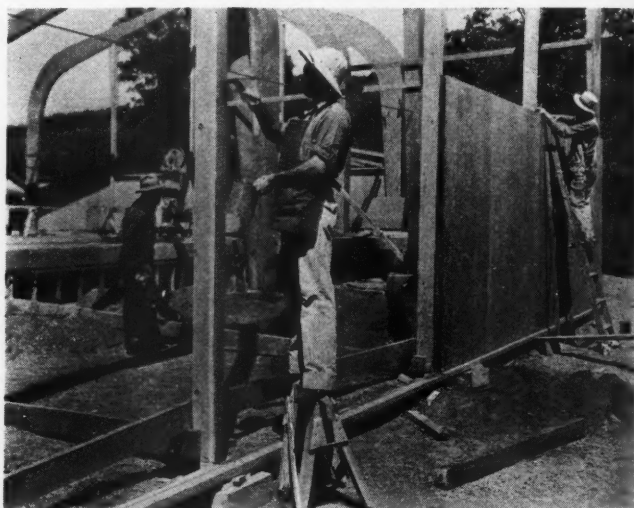
The wall and roof panel sections having been constructed to a predetermined schedule of sizes, numbered, and delivered to a job site, the start of application consisted of setting a level guide for the first row of panels, both for sidewalls and roof, and other courses followed. The sections were brought to this guide line and glued to the legs or arms of the trusses. Pressure until glue set was applied by blind nailing. This is an important feature of the self-bonding glue.

The section joints were rendered flush and invisible by a system previously used on many jobs, and consisted of a technique of enlarging the joint uniformly with a high speed electric hand router. The cut extended into the framing member that supported the adjacent edges of the plywood. Into the uniform size incision was inserted a spline which was fixed in place with the self-bonding glue. The surface of the joint was rendered smooth with a hand electric sander. This joint is considered distinctly superior to any method of butt joining with plastic or other fillers, and is patented by the Speedwall Company.

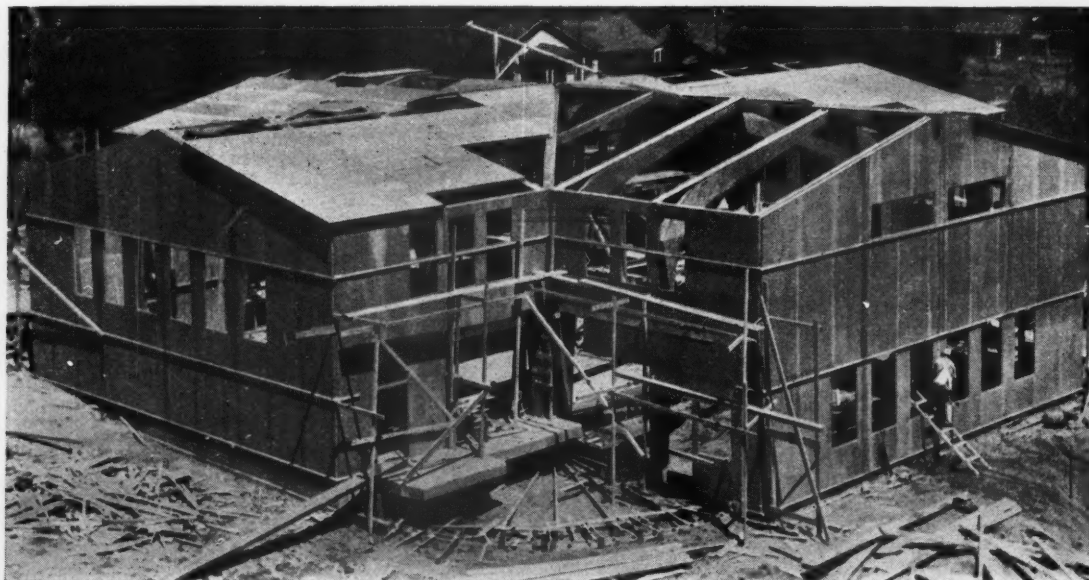
Finishing of Exterior

The sidewalls and roof having been permanently fixed and glued into solid units, they were ready for opening frames and trim, which were put in place in a simplified,

(Continued to page 90)



ABOVE: Workmen applying prefabricated wall sections which are held to the studs with self-bonding glue and blind nailing.



LEFT: 85 per cent of the material used on this auditorium is plywood in the form of sidewalls, roof, interior finish and cores of the framework.

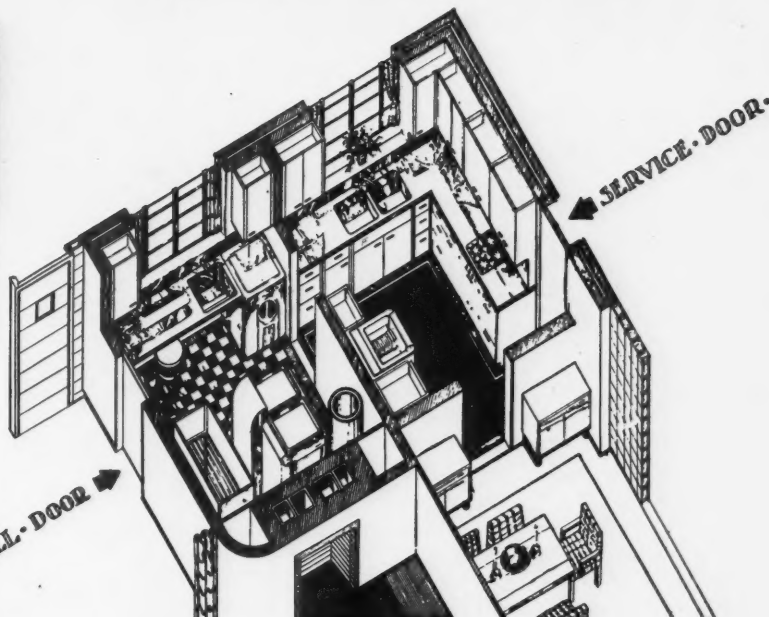
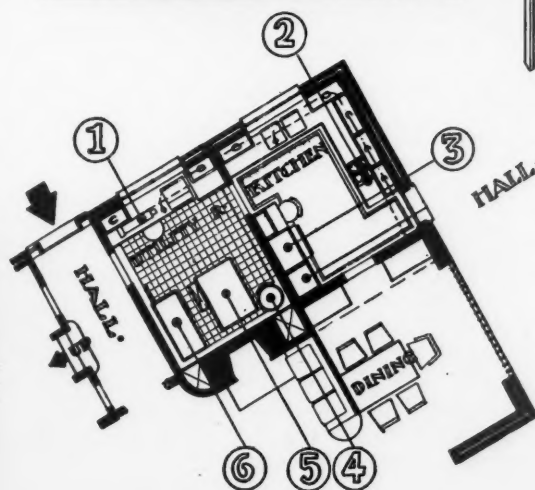
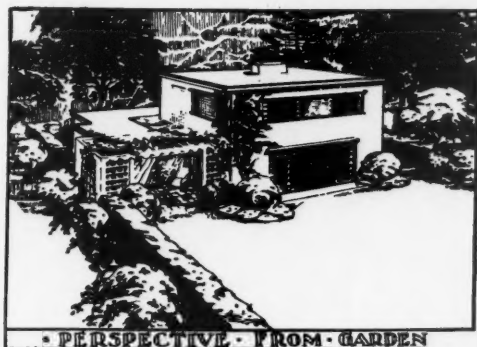
NOTE



COMPACT HOUSE-KEEPING CENTER

in this Prize-Winning

A.G.A. All-Gas Home



1. Gas heated ironer.
2. Gas range.
3. Gas refrigerator.
4. Gas automatic water-heater.
5. Gas house-heating unit.
6. Gas laundry dryer.

ARCHITECT: George D. Connor, Washington, D. C.

Now build an **A.G.A. All-Gas Home** . . . Enter \$10,000 prize competition for builders and their architects.

The All-Gas Home Building Competition closes July 1, 1939. Write for entry blank and free booklet, containing all the information you need. Competition Director, American Gas Association, 420 Lexington Ave., N. Y. City.

Modern Gas Equipment affords greater living area per dollar of building money

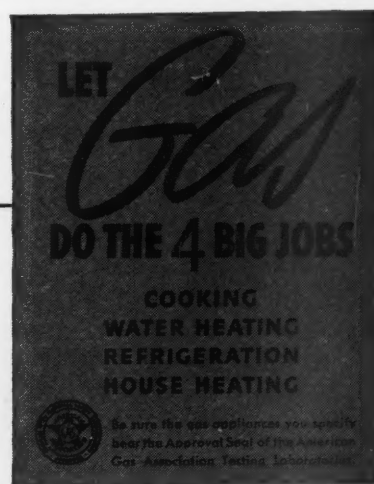
Just see how the use of gas helped this architect stretch his building dollars!

First, he saved the expense of basement excavation—because gas is always on tap, does not have to be stored. It's clean, so heating equipment does not have to be isolated.

Second, he kept flue, chimney, and plumbing costs down by central placement of service equipment—an efficient, step-saving layout to lighten the house-keeper's work.

Consider, also, the relatively low cost of modern gas appliances and you'll see how the choice of gas for "the 4 big jobs" makes building money go further.

All-Gas Homes are easier-to-plan, easier-to-sell, easier-to-live-in. The absence of delicate parts in the new gas ranges, refrigerators, water heaters, and house-heating equipment assures silent, trouble-free operation . . . lasting satisfaction. Consult your local Gas Company for full information and detailed specifications.



AMERICAN GAS ASSOCIATION

Competition Director, American Gas Association
420 Lexington Ave., N. Y. C.

Date _____

Last Name _____ First _____ State _____
Please Print

Address _____ City _____

I wish to enter A.G.A. Builders' Competition.

I am a Builder ☐

Note: Architects or designers may enter homes in this contest with the written permission of the builder.

Architect _____

Designer _____

Kindly forward complete details. Signature _____

B1

How *TruCost* Figures Any House

By A. W. HOLT

"**H**OW can we apply our *TruCost* unit costs in figuring other houses than those shown in *American Builder*?" That is a question that so many have been asking me these last few months while I have been traveling around visiting with the practical men of this building industry.

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TruCosting ANY House Design

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Rule: Linear feet of foundation equals the perimeter which always equals the extreme width plus the extreme length multiplied by two and add for recesses.

Adding 30' and 50' gives 80' to double for 160 linear feet of foundation. This "doubles up" on the four corners and allows footings for girder posts, piers, etc.

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Now you can get all three in a single package

PLASTER BASE • INSULATION REINFORCEMENT

Reinforced plaster with
WEATHERWOOD
Reinforced
INSULATING LATH

EXCLUSIVE USG REINFORCED JOINT protects all horizontal joints on Weatherwood Insulating Lath. It is simplicity itself to adjust. You simply pull it into place over the rigid tongue and groove joint, and it is ready for plastering—no nails required to hold it snug and tight!

PLASTER IS FORCED BEHIND, BETWEEN AND AROUND the USG joint reinforcement. Extra plaster is thus automatically put where it is most needed and where it is further strengthened against unsightly cracks by the metal reinforcement.

Here's a plaster base that DOES A TRIPLE JOB for you. For incorporated in it are:

1 A special patented metal reinforcement that builds extra strength and crack-resistance into all horizontal joints of the lath—actually reinforces the plaster at its weakest point.

2 Tongue and groove construction. Another exclusive feature. Makes a rigid base that grips and holds plaster—makes work easier for the plasterer.

3 The protection of a truly scientific insulation—saving fuel in winter and

increasing comfort in summer — a characteristic of the entire Weatherwood* line.

And the best part of it is WEATHERWOOD REINFORCED INSULATING LATH,

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To help you increase remodeling and repair sales

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One of the most generous finance plans ever devised to help you get your share of the repair and remodeling market RIGHT NOW. Write for complete details.

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PLASTERS.. ROCKLATH*.. METAL LATH.. SHEETROCK*.. FIBER WALLBOARD.. SHEATHING.. INSULATING BOARD.. INSULATING



WOOL.. ACOUSTICAL MATERIALS.. PAINT PRODUCTS.. STEEL PRODUCTS.. ROOFING PRODUCTS.. SIDING PRODUCTS.. LIME PRODUCTS.

AB-11

*Registered trade marks

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"A.W." finds some are for, others against, "TruCost." How do YOU rate it?

Now you can get all three in a single package

PLASTER BASE • INSULATION REINFORCEMENT

Reinforced plaster with **WEATHERWOOD** *Reinforced* **INSULATING LATH**

EXCLUSIVE USG REINFORCED JOINT protects all horizontal joints on Weatherwood Insulating Lath. It is simplicity itself to adjust. You simply pull it into place over the rigid tongue and groove joint, and it is ready for plastering—no nails required to hold it snug and tight!

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The floor area of this house totals 1,200 sq. ft. or 1,008 for the main unit 24' x 42' plus 96 sq. ft. for the 6' x 16' projecting Living Room and another 96 sq. ft. for the 8' x 12' Added Room unit for the rear Bedroom.

Rule: Squares of outside walls equal perimeter multiplied by height of first story, plus perimeter of second story (if any) times its ADDITIONAL height, plus gables, plus dormer walls.

The subject plan has 18.1 squares of wall, computed as follows: The 160 lin. ft. (perimeter) multiplied by 9'6" for 8'6" ceiling height and 12" for 2 x 10 joists and mud sill equals 1,520 sq. ft. The three front gables are 16 feet wide, as shown by the 15 foot depth of the Living Room; and, being 1/2 pitch, the area of each is equal to the rise of 8 feet multiplied by half of the width, or 8 feet. This adds 192 sq. ft. Add 96 sq. ft. for the rear gable which is 8 feet high and 24 feet wide at its base and computed by multiplying 8 x 24 and dividing by 2 or dividing one or the other of the two dimensions before multiplying. Anyway one chooses to figure, the total wall area is 1,520 + 192 + 96 or 1,808 sq. ft. which is called 18.1 squares of wall.

The 12 squares of floor and ceiling areas are also basic in computing the 16.4 squares of roof for this house according to the basic roof area table which reads:

Rule: Squares of roof equals square feet of floor area plus the perimeter multiplied by the projection of the cornice in FEET, plus the percentage given for the designated pitch of the roof; then point off two places.

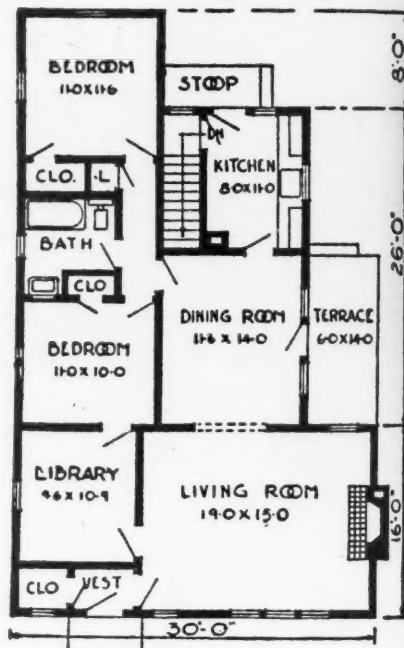
Applying that rule, the 1,200 sq. ft. floor area plus 80 sq. ft. for 160 lin. ft. perimeter multiplied by 1/2 foot cornice projection for this C&F (crown and frieze) cornice makes 1,280 sq. ft. of "flat surface" UNDER this roof. Had the entire roof been of the same pitch it would only be necessary to add the "pitch percentage" once. As it is there must be added 42 percent for the 1/2 pitch roof and 20 percent for the 1/3 pitch roof back of the cross ridge, in accordance with this schedule of roof percentages.

Pitch of Roof	Inches rise per foot run	Percent to add per*	Add for Hip and Valley
1/6	4"	5.4%	38%
1/4	6"	11.8%	34%
1/3	8"	20.2%	30%
5/12	10"	30.2%	26%
1/2	12"	41.4%	22%
7/12	14"	53.7%	19%
2/3	16"	66.7%	17%
3/4	18"	80.3%	15%

* This is the percentage to add to the run of the rafter to have its length and also the amount to add to the "flat surface" UNDER a roof (from eave to eave) to have the actual roof surface.

The last column gives the percentage to add to the length of a common rafter to have the length of the hip or valley rafter or the valley flashing or hip shingles. Just as sure as 5 is 25% greater than 4 of the "3, 4 and 5" geometrical rule, so sure can one be of these percentages.

Inasmuch as the roof illustrated is of two different pitches, the 1,280 sq. ft. of flat surfaces must be apportioned to each pitch. It is a simple matter to figure this but most practical men will "judge" this close enough for all practical purposes. I called it about 1/3 under the 1/2 pitch roof and the remaining 2/3 as having a 1/3 pitch roof over it. To simplify figuring 480 sq. ft. and 800 sq. ft. respectively. Therefore, adding 42 percent (technically 41.4) of 480 sq. ft. gave 202 sq. ft. and 20 percent of 800 sq. ft. gave 160 sq. ft. more. Adding



SAMPLE House design used to illustrate the principles of "TruCost" estimating system.

1,280 plus 202 plus 160 gave 1,642 sq. ft. which is called 16.4 squares of roof surface.

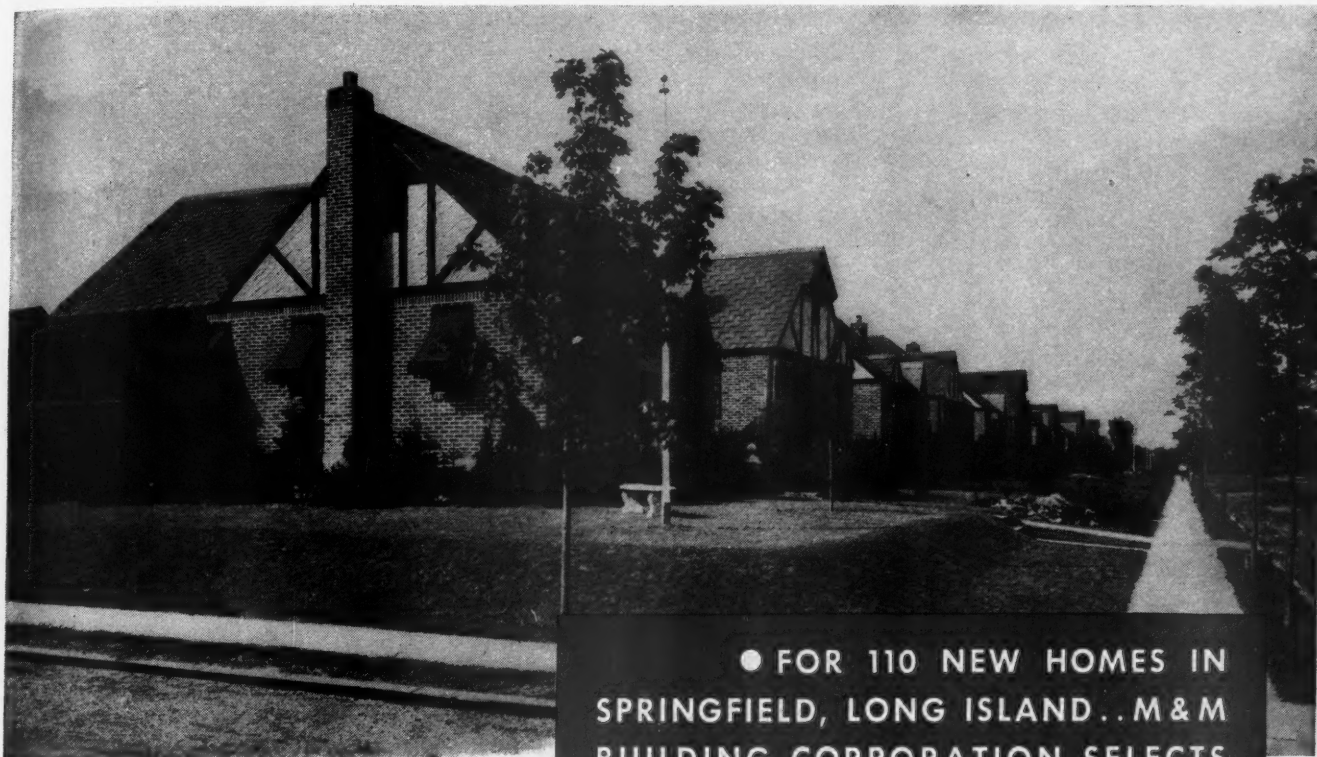
Space will not permit explaining how the length of valleys for this "mixed-pitch" roof is determined; but the valleys for this house will total 64 lin. ft.

Rule: Lin. ft. of cornice equals the perimeter, plus the roof percentage of the total width of all gables, plus duplication of cornices.

Just as the simplest thing in the world seems complicated at first, so is that basic rule until explained. Obviously, a hip roof house having cornice parallel to the foundation or floors on all sides has the same amount of cornice as its perimeter except for the four corners. All that would have to be added for the cornice if that same house had a plain gable roof is the extra cornice to "follow the rafters" instead of "cutting across" the gables. And that is where it is convenient to refer to the calculations of wall areas and add the combined width of all gables and then adding the extra cornice which is always the roof percentage of the pitch. And if that roof had four gables and was 1/2 pitch, 42% more cornice would be required than for the hip roof because it is 42% farther around the building "along the four gables" than it is horizontally as given by the perimeter. It is all so simple that it is difficult to understand why there should be so much difference in material lists made by different estimators.

The house illustrated has 3 gables 16 ft. wide or a
(Continued to page 80)

THOSE WHO MUST SELL WHAT THEY BUILD SELECT ANTHRACITE FOR HEATING



● FOR 110 NEW HOMES IN
SPRINGFIELD, LONG ISLAND..M & M
BUILDING CORPORATION SELECTS
ANTHRACITE HEATING EQUIPMENT

THE WISE BUILDER knows that year after year heating cost is even more important to the home owner than original equipment cost.

More and more, such builders are recommending Anthracite for fuel, because they find that modern Anthracite heating is so satisfying to the home owner, and fuel bills are so easy on the pocketbook, that extra good-will for the architect is bound to follow.

The builder of the above illustrated homes says: "My experience in building this type of home definitely shows that it is cheaper to heat them with Anthracite than it is to heat them with oil."

Anthracite is the one fuel which will provide this economy without sacrificing comfort and convenience.

The book, "Modern Anthracite Equipment," describes the newest developments in automatic heat and air conditioning. A copy will be sent upon request.

ANTHRACITE INDUSTRIES, INC.

Chrysler Building, New York



*This Seal of Approval
appears on Anthracite
equipment only after it
has passed the most rigid
tests in the heating field.*

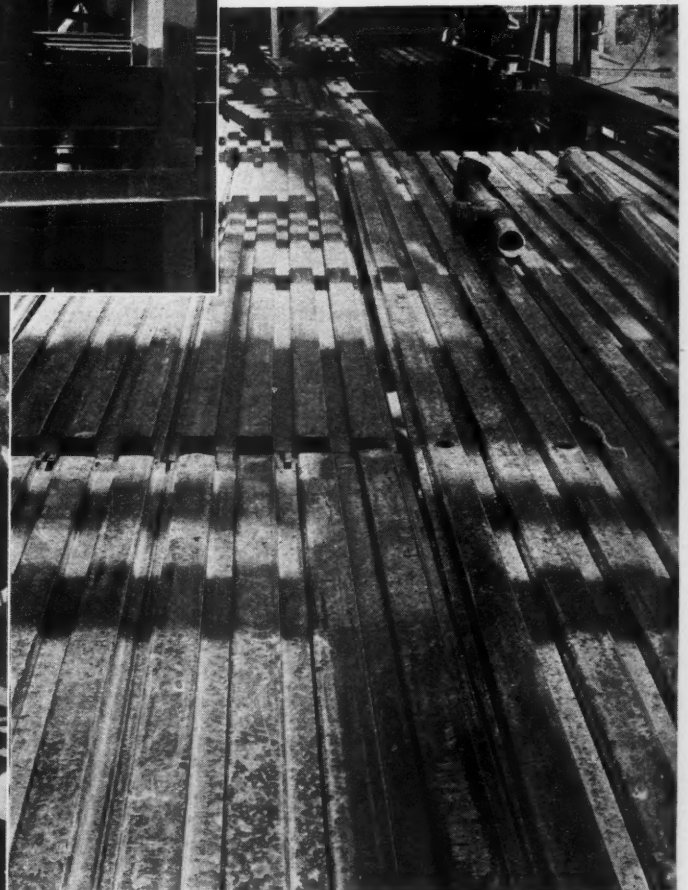
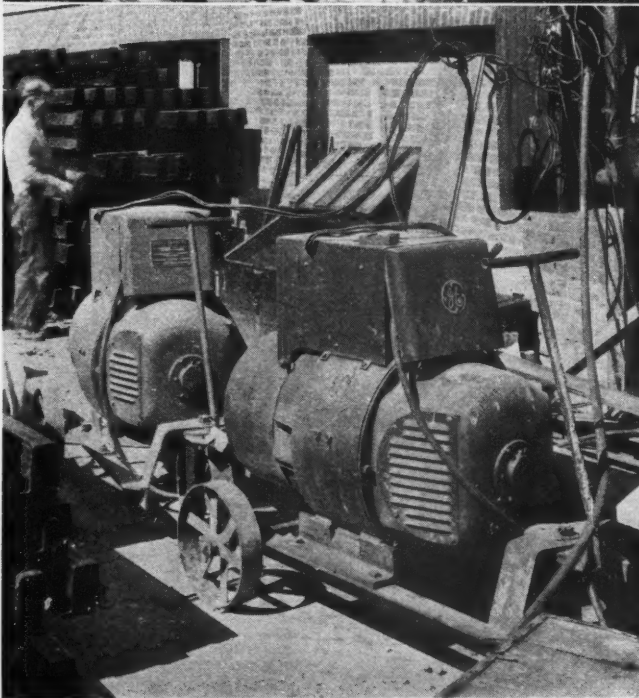
Pennsylvania
ANTHRACITE
COAL

Welding Methods Allow Fast, Quiet Job

DURING the recent erection of the steel framework of a new addition to Ellis Hospital, Schenectady, N.Y., as fast as operators welded the various structural members in place, workmen from H. H. Robertson Company, Pittsburgh, Pa., laid a welded, incombustible floor. This flooring, known as Type K Rob-

ertson Cellular Steel, was formed in the shop and shipped in two-foot-wide units to the building site. Thus, the actual laying of the floor became a relatively simple matter—the workmen placed the sections together according to plan and welding operators, using General Electric motor-generator arc-welding equipment and electrodes, tack-welded the section to the floor girders. Wire mesh was then laid on top of the assembled sections and concrete was poured over the mesh forming a rigid, incombustible floor. The hollow steel floor beams, embedded in concrete, are an excellent means of carrying electric wiring for both present and future requirements.

The hospital addition is the seventh building with an all-welded framework to be erected in Schenectady. In this case, the welding method proved a particularly desirable means of construction because of its quietness on a job where the minimum of noise was absolutely essential. Decibel-meter readings taken in a patient's room during the construction showed that, with the windows closed, the prevailing noise level in the hospital was less than that created by normal conversation as a result of the use of electric welding.



CONSTRUCTION views of Schenectady hospital showing (top) welded structural members; (above) cellular steel flooring units to be welded in place; (left) motor-generator arc-welding equipment.

BRIXMENT

FOR

STUCCO

THE same advantages that make Brixment superior to portland cement and lime for masonry make it equally superior to these materials for stucco!

Brixment stucco is similar in appearance, strength and wearing qualities to portland-cement stucco because, like portland, Brixment is a *true hydraulic cement*. It is water-proofed, increases in strength with age and withstands the test of time as only a true cement can.

The well-known plasticity of Brixment mortar permits easy application in *leaner mixes*. This eliminates the bad shrinkage cracks, hair checking and crazing so commonly caused by the rich mixes necessary to give portland-cement mortar the necessary working quality.

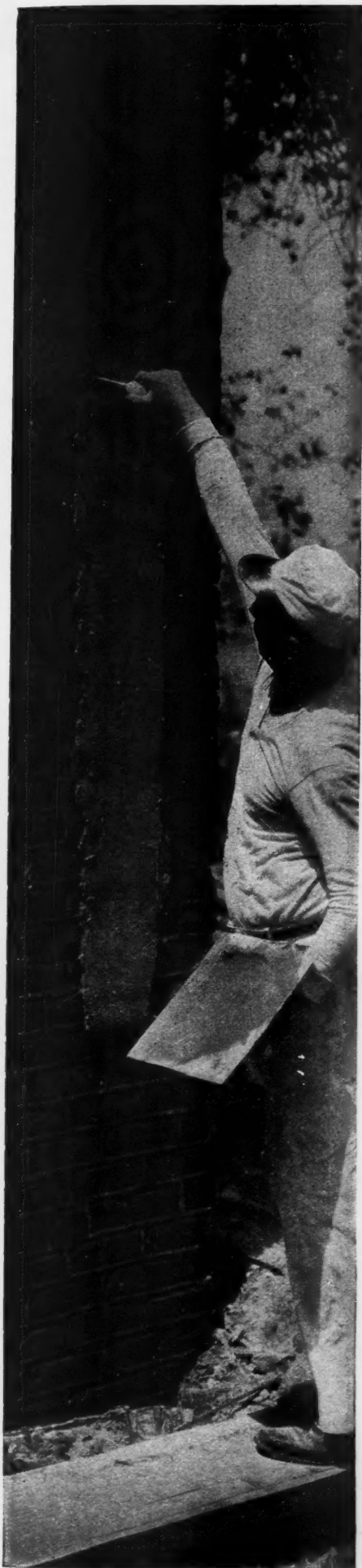
The slower hardening of Brixment mortar gives the plasterer more time to make his joinings, thus avoiding at these points the characteristic discoloration of fast-setting portland-cement stucco. The calcium stearate in Brixment gives that water-proofed quality so desirable in stucco.

The lower price of Brixment and the leaner mix make the cost of materials decidedly less than when mortar with a large content of portland cement is used. *But even greater economy is obtained from the smooth-working quality of Brixment mortar which results in the faster, easier application of the stucco.*

Brixment can be applied over any kind of masonry backing (brick, tile, concrete, etc.) or over any kind of metal lath or reinforcing. It should not be applied over any type of wood lath.

The proper mix for all coats is one part Brixment, three parts sand. When so mixed, four bags of Brixment will cover approximately 15 square yards of wall surface with stucco one inch thick.

LOUISVILLE CEMENT COMPANY, *Incorporated*, LOUISVILLE, KY.
District Sales Offices: 228 North LaSalle Street, Chicago; 600 Murphy Building, Detroit
101 Park Avenue, New York. . . . Mills: Brixment, New York and Speed, Indiana



Precast Concrete Joists Make Attractive Ceiling in Exhibition Home

AS concrete joists are being produced by an increasing number of plants, serving an ever widening territory, builders and architects are becoming more interested and trying out these sturdy structural members for various kinds of jobs. They are finding them not only economical and labor saving for fire resisting floor construction, but also decidedly decorative when viewed from below. They make a beamed ceiling of dignity and charm.

One of the outstanding examples of the decorative use of precast concrete joists for residential ceilings was in the "Little Concrete House on Walnut Street" which the Portland Cement Association exhibited in downtown Philadelphia. This was designed by Mr. S. D. Kaufman and created no little interest because of its popular size, low cost and lasting construction. It was offered as a splendid example of today's house—concrete ashlar walls, firesafe concrete floors, copper roof, all-electric throughout, modern plumbing fixtures and wall coverings. The concrete walls and floors were well-liked. They proved to be moderate in first cost and

astonishingly low in upkeep, proof against fire, storm and termites; dry and easy to heat in winter, cool in summer. The concrete floors were poured onto forms resting on the precast joists, making a rigid, firesafe construction, but moderate in cost. Concrete floors are warm and quiet, fireproof and strong. They take any covering—wood, carpet, linoleum, or can be simply colored and waxed.

The concrete ceiling is usually painted in two or more tones, so that the beams stand out in bold relief against the lighter panels. Because of the graceful, clean lines of the precast joists, no attempt is made to conceal them, nor is any touching up needed to fill imperfections before painting. The I-beam shape produces side lights and shadows that are interesting and attractive.

If care is used in the form work for pouring the ceiling panels they will be smooth and clean. Douglas fir plywood or sheet steel for forms is generally used for this purpose. There are also precast floor units or slabs that are used with the precast joists; and with these, of course, no forms are required, and considerable time is saved.

LIVING ROOM in the Concrete Industry's demonstration home in downtown Philadelphia featured a precast joist beam ceiling that was considered a success as it added to the dignity and strength of this well furnished apartment.



NEW
ON

Get ac
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The
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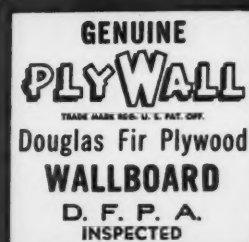
EXT
denote



All Douglas Fir Plywood

NOW UNIFORMLY GRADE MARKED!

*Look for these Grade Marks
on all new stocks of
DOUGLAS FIR PLYWOOD!*



PLYPANEL D.F.P.A.

EXT. - D. F. P. A.

NEW GRADE MARKS APPEAR ON EDGE OR ON FACE OF ALL STANDARD SIZE PANELS!

Get acquainted with these new grade marks. They'll save you money when you buy. For now you can order for any specific job—and be sure the grade is right for that job. You'll find these grade marks on all new stocks of Douglas Fir Plywood. Look for them.

The PLYSCORD grade mark is stamped on the corner of each panel of this fast-selling sheathing and sub-flooring material. It's also carried with the parallel nailing guide lines across the face of the panels.

PLYPANEL is stamped or branded on the edge of all standard panels and indicates panels Good Two Sides, Good One Side, or Sound Two Sides.

PLYWALL is stamped on the back of all Plywall Wallboard.

PLYFORM appears on the face of all Plyform Concrete Form Panels.

EXT. - D.F.P.A. stamped on panels denotes panels which are strictly water

proof and capable of passing the severe requirements of CS 45-38.

And finally—the letters D.F.P.A. appear on the edge, or in a stamp on the face, of all standard size panels. They indicate that the grading and trade marking has been approved by an inspector of the Douglas Fir Plywood Association.



NEW COMMERCIAL STANDARDS SIMPLIFY READY IDENTIFICATION— MAKE PLYWOOD EASIER TO USE!

Now, for the first time, all Douglas Fir Plywood (from Association mills) is grade marked with standard nationally advertised symbols! And again the plywood industry shows its leadership in making plywood a still better product—easier, faster to use.

With each panel of Douglas Fir Plywood now grade marked, identification when you buy and on the job is easy. It assures that your workmen will use the right grade for the right job.

Grading, under the supervision of the independent inspectors of the Association, is in accordance with the published Association grading rules (U. S. Dept. of Commerce Commercial Standards CS-45-38). Only plywood manufactured under these strict conditions can carry the registered grade marks and trade marks of the Association.

Insist on the Douglas Fir Plywood Association grade mark and trade mark on every panel of plywood you buy. These markings are your assurance of rigid inspection and exact conformity to the official grading rules.

Douglas Fir Plywood can be obtained in grades for any construction need, including a special grade marked EXT - DFPA for permanent exterior exposures. Our well equipped Technical Division offers cooperation in recommending Douglas Fir Plywood to produce the utmost serviceability and economy. Address DOUGLAS FIR PLYWOOD ASSOCIATION, Tacoma Building, Tacoma, Wash.

New Products Give More Building Value

New Upward-Acting Garage Door Keeps Pace with Improved Equipment Demands

THE availability of a new, improved and foolproof upward-acting garage door which is priced for the volume low-cost building field has been announced by the Crawford Door Company, Detroit, Mich., holders of the patents on the new door and manufacturers of the hardware unit. This garage door will be marketed through millwork distributors, lumber dealers, and the outlets of the Crawford Door Company under the trade name, "Craw-Fir-Dor."

The following manufacturers of fir doors have been licensed by the Crawford Company to provide the prefitted and factory-drilled fir door units and to sell the complete Craw-Fir-Dor: Buffelen Lumber and Manufacturing Co., Tacoma, Wash.; Central Door and Plywood Corp., Portland, Ore.; Clear Fir Lumber Co., Tacoma, Wash.; Harbor Plywood Corp.,

Hoquiam, Wash.; M and M Wood Working Co., Portland, Ore.; Monarch Door Co., Tacoma, Wash.; Northwest Door Co., Tacoma, Wash.; Robinson Manufacturing Co., Everett, Wash.; and, Wheeler-Osgood Sales Corp., Tacoma, Wash.

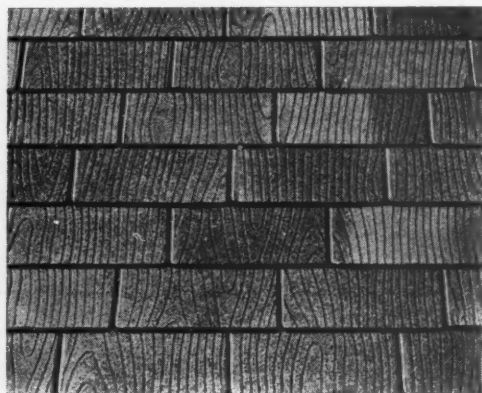


CRAW-FIR-DOR, upward-acting garage door designed for low cost market.

Wood Grain Textured Asphalt Shingle

THE Ruberoid Company is now marketing a textured wood-grain asphalt shingle which compares favorably in appearance with more expensive asbestos cement products.

Produced in a thick but square-tab design, the new shingle is offered in a variety of colors and color blends and is available in 12 x 36 inch and 14 x 36 inch sizes. In addition to its attractive wood graining, strong points of the shingle include double protection at the butts and deep shadow lines.



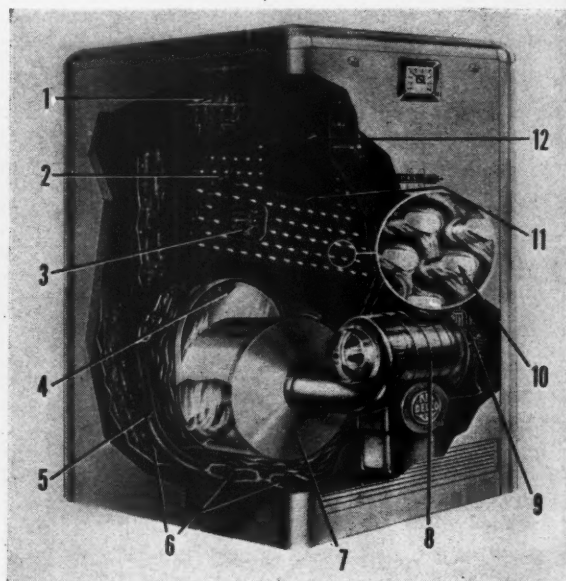
NEW asphalt shingle with thick butt, square tab and wood-grain textured effect.

Quick-Heating Oil-Fired Furnace

MORE heat in a quicker manner is assured users of the new Delco Quik-Action oil furnace being marketed by the Delco-Frigidaire Conditioning Division of General Motors Sales Corporation, Dayton, Ohio. The new furnace eliminates all fire brick and other refractory materials used as fire box linings and creates a new kind of combustion chamber by sub-

stituting a special metal heat transmitter. Reaching a glowing heat almost immediately after the heating cycle has started, the heat transmitter transfers most of its heat to the boiler walls by radiation.

Another innovation is the streamlined fins on the boiler sections which are so shaped and placed that the conveyed heat, in rising toward the flue, travels 58 per cent farther, affording the user a far greater saving of heat.



SHOWN above in Delco oil furnace are: (1) ample water or steam outlet; (2) shredder pins; (3) waterbacked fins; (4) exhaust end flames traveling upward; (5) streamlined water channels; (6) firebox surrounded by water; (7) Quik-Action heat transmitter; (8) Rotopower unit; (9) Thin-mix fuel control; (10) fins; (11) baffle plate; (12) salvage fins.

Apartment Door Safety Peephole

THE Keilson Inquirer is the name of an attractive fixture for apartment doors, made by Francis Keil & Son, Inc., 417 East 163rd Street, New York. By simply sliding a small shutter to the right or left, a housewife can safely glance through any door to see who a caller may be. With the slide open, voices in conversational tones carry readily from one person to the other and the door need not be opened to peddlers or others until perfect safety is assured. The slide closes and locks automatically the moment it is released. Keilson Inquirers are made in a convenient size of 3½ x 3½ inches and can be furnished with or without the apartment number plate in a variety of finishes.



KNOB on inside of door peephole opens shutter to view caller.

Felt-Backed Mastic Floor Tile

ANNOUNCEMENT has been made of the addition of a "Felt-Cushion Mastic Tile" to the line of the Resilient Tile Floors Department, Building Materials Division of the Armstrong Cork Products Company of Lancaster, Pa. The product is a mastic mix on a saturated felt backing, available in four colors—red, green, brown and black.

THE TRUCK FOR THE JOBS OF 1939

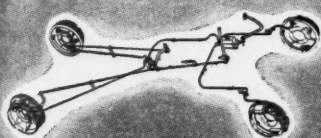
FORD V-8



HIGHLIGHTS OF THE 1939 FORD V-8 TRUCKS



NEW 95-HORSEPOWER V-TYPE EIGHT-CYLINDER ENGINE—A new 95-hp. V-8 engine is now available in addition to the improved 85 and 60 hp. V-8 engines.



NEW HYDRAULIC BRAKES—Four-wheel hydraulic service brakes, built to Ford standards of safety, are regular equipment on all 1939 Ford Trucks.

- New-type piston rings for improved oil economy.
- All-steel cabs, insulated, ventilated and with Safety Glass throughout.
- 34-in. frame width standard on all units.
- Improved Semi-Centrifugal Clutch.
- Worm-and-roller steering.
- Full torque-tube drive.
- Straddle-mounted driving pinion—ring gear thrust plate.
- Full-floating rear axle.
- Factory-installed two-speed rear axle available at extra cost.
- Ford Engine and Parts Exchange Plan. Saves time. Saves money. Avoids long, costly layovers.

THIS YEAR Ford gives economy a new meaning—over a wider range of truck operations than ever before.

To the time-proved 85-hp. and 60-hp. V-8 engines is added the new 95-hp. V-8 engine for greater power and speed. It is available in the Regular and C. O. E. Trucks. There are new hydraulic service brakes for quick, straight-line stops, with easy pedal pressure. Along with these new features are those *time-tested* truck features that have set the high Ford standard of performance and reliability.

For 1939 there are 42 body and chassis types, with a choice of equipment including factory-installed two-

speed rear axle, optional gear ratios, transmissions, clutches.

Ten billion miles of payload performance have proved the Ford V-8 engine and the rugged, dependable construction of Ford Truck chassis equal to the toughest jobs.

If you want to know why there are more Ford Trucks on the road than any other make, examine the Ford Truck. See the 1939 Ford V-8 units. Match them feature for feature with any other truck of comparable size and price. *Know the difference before you spend another truck dollar.*

Arrange through your Ford dealer for a new Ford V-8 Truck with which to make an actual "on-the-job" test.

FORD MOTOR COMPANY, MAKERS OF FORD V-8 CARS AND TRUCKS, MERCURY, LINCOLN-ZEPHYR AND LINCOLN MOTOR CARS

Jaeger's LATEST SPEEDLINE END DISCHARGE TRAILERS

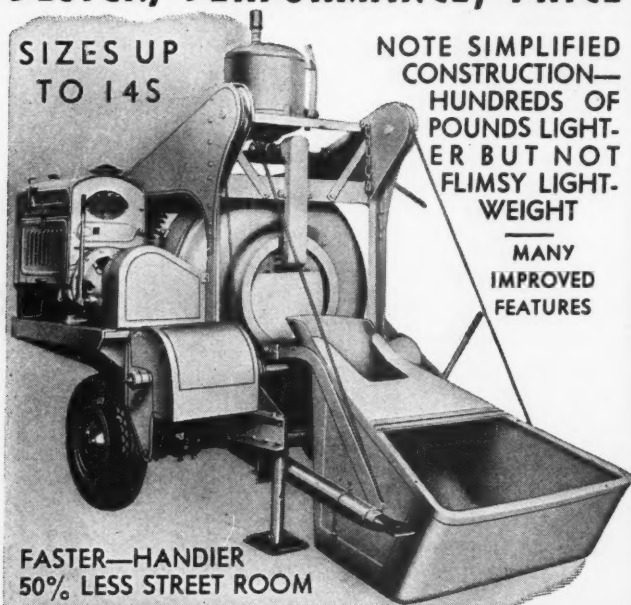
**1939 TYPE, SENSATIONAL IN
DESIGN, PERFORMANCE, PRICE**

**SIZES UP
TO 145**

**NOTE SIMPLIFIED
CONSTRUCTION—
HUNDREDS OF
POUNDS LIGHT-
ER BUT NOT
FLIMSY LIGHT-
WEIGHT**

**MANY
IMPROVED
FEATURES**

**FASTER—HANDIER
50% LESS STREET ROOM**

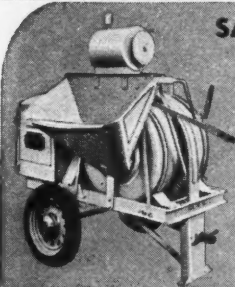


**SAVE HUNDREDS OF DOLLARS
ON YOUR SMALL MIXER**

Pay about half the price of heavy
55 Non-Tilts, get up to 40 cu. yds.
a day of quality concrete—

**JAEGER "UTILITY"
MIXER with MEASURING
BATCH HOPPER**

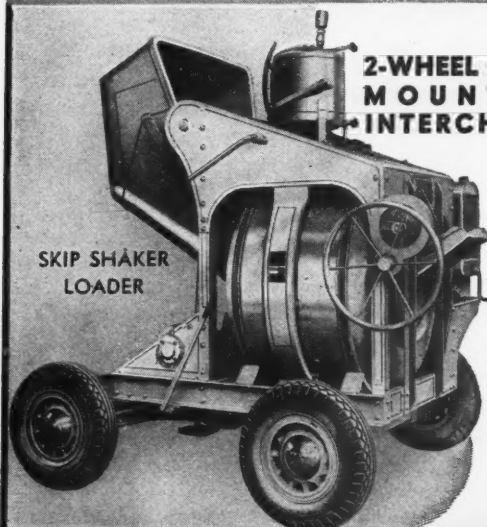
Fast as a costly Power Loader
Machine—handy to move and trail.



**2-WHEEL OR 4-WHEEL
MOUNTINGS—
INTERCHANGEABLE**

**AUTOMOTIVE
STEERING,
SPRINGS,
TIMKENS,
PNEUMATICS**

**SKIP SHAKER
LOADER**



**GET OUR
NEW LOW
PRICES
—ASK FOR
CATALOG
SM-39**

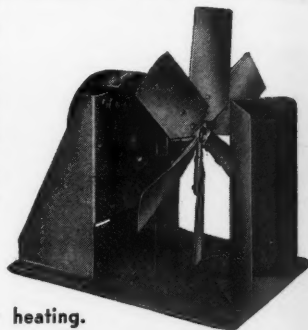
THE JAEGER MACHINE CO.

521 DUBLIN AVE.

COLUMBUS, OHIO

Booster Fan for Warm Air Systems

A NEW unit has recently been designed and perfected for increasing the efficiency of warm air gravity heating systems by the Autovent Fan & Blower Company, Chicago. Of booster propeller fan type construction, it breaks up air pockets in the furnace and provides distribution of air by forcing circulation through the pipes. It gives quicker, more positive re-circulation of air through the house and helps eliminate cold floors. This booster fan is not designed for installation in individual heating pipes, but for installation at the base of the cold air return duct at the point where it contacts the furnace. Equipped with patented deflector plates, it is designed to prevent air pockets at any point along the furnace base. Forced air action moves the heated air out of the furnace and distributes it to all the rooms in the house.



BOOSTER fan gives easier heating.

Westinghouse Durawood Micarta

DURAWOOD, an entirely new material combining Micarta and natural woods, is tough, long-wearing and possesses the durability and hardness of Micarta and the varied beauty of genuine wood. It is manufactured by the Westinghouse Electric & Manufacturing Company, and is available in the popular wood designs—mahogany, oak, walnut and pine. It has the warmth and beauty of the finest natural woods. Not an imitation, but the natural wood itself is impregnated and treated so that its permanent glass-like surface is impervious to liquids of all kinds, yet it will not chip, break or crack. The material is furnished in sheets 48x96 inches. It can be cut with an ordinary carpenter's saw to any desired specification, or quickly drilled for attaching.

Efficient Single Spindle Shaper

THE Hutchinson Manufacturing Company, Inc., Norristown, Pa., designers and manufacturers of woodworking machinery, now have on the market a single spindle shaper with advanced features

which produce the utmost in accuracy, speed and convenience. Instead of the spindle moving up and down for adjustments, the spindle is mounted rigidly in the frame of the machine and is adjusted to the table by means of gears, giving absolute rigidity to the spindle at all times. The table top is of good size, being 24 x 32 inches. Very fine adjustments to the cutter are made by merely raising and lowering the table with a hand wheel.



NEW spindle shaper.

Treatment for Renewing Red Cement Tile Roofs

SINCE a roof receives the most difficult type of weather exposure, it is small wonder that after years of such exposure, red cement rib tile roofs lose their color and begin to look old. The Truscon Laboratories, Detroit, Mich., one of the manufacturers of this type of roof recently have succeeded in developing a treatment which will restore the waterproof and water-shedding character of the roof, and recolor and renovate its appearance and make it look like a new roof. The name of this new method is the Por-Lox System of waterproofing and recoloring red cement rib tile roofs. It is easily applied and economical to use.

THE SOONER YOU PUT UP THIS SIGN...



THE QUICKER THIS ONE WILL COME DOWN!

THERE'S plenty of selling punch in that "Painted with Sherwin-Williams" sign! It's a quick, sure way to convince your prospects of top-quality all through the houses you display!

Prospects can't help but admire the distinctive colors, beautiful surface of Sherwin-Williams Paints. And they know they're looking at the most complete paint protection

on the market — the Sherwin-Williams brand they would have specified if they built the house themselves. A Sherwin-Williams paint job implies the standard of soundness your prospects are out to buy!



Help yourself to the prestige of the paint in which everyone has confidence. Paint your houses with Sherwin-Williams Paints. And don't miss the advertising and selling value of a "Painted with Sherwin-Williams" sign on every job! See our catalog in Sweet's. For further information, write The Sherwin-Williams Co., Cleveland, Ohio and principal cities.

SHERWIN-WILLIAMS PAINTS

EASY TO READ!

\$3.50 LIST and up

NEW MODEL NEW LOW PRICE!

THIS NEWEST member of a famous family offers all the Wyteface advantages at a popular price. The black-on-white graduations are easy to read, even in dim light. The smooth white surface—permanently bonded to the steel—protects the line from corrosion and rust. A new resilience makes this improved steel tape hard to kink and hard to curl, greatly increasing the useful life of the line. The case is of sturdy leatherite, all mountings heavily nickel plated.

Favorite Wyteface comes in 25, 50, 75 and 100 ft. lengths, sold by hardware and building supply dealers. Send the coupon below for an illustrated folder and complete prices.

EST. 1867

KEUFFEL & ESSER CO.

NEW YORK - HOBOKEN, N. J.

CHICAGO • ST. LOUIS • SAN FRANCISCO • DETROIT • MONTREAL

K & E FAVORITE WYTEFACE
STEEL MEASURING TAPES

LOOK
FOR
THIS
DISPLAY



KEUFFEL & ESSER CO., Dept. 17, Hoboken, N.J.
Send folder and prices on Favorite Wyteface.

Name _____

Address _____

News of the Month

Building Activities and Meetings

September Residential Building Up 52%: First 9 Months Only 7% Under Same 1937 Period

RESIDENTIAL building made further marked advances in September, according to F. W. Dodge Corporation. Contracts awarded last month for dwelling accommodations of all kinds in the 37 states east of the Rocky Mountains amounted to \$99,574,000, compared with \$65,590,000 in September, 1937, and with \$99,732,000 in August of this year. The increase over September, 1937, was 52 per cent, and the daily average of September contracts was somewhat higher than the August daily average, whereas there is usually a seasonal decline in September.

Two outstanding large projects swelled the September residential total, both in New York City. One was the Red Hook housing project, first to be started under the new Federal public housing program, contracted for at \$7,243,000. The other was the first unit of the vast investment housing project of the Metropolitan Life Insurance Company, valued at \$11,685,000. While these two projects were of exceptional character in the September record, both are forerunners of similar public and private housing projects to come. Together, they accounted for nearly \$19,000,000 of the \$34,000,000 increase over September, 1937. Of the fifteen districts making up the 37 states territory, nine besides the Metropolitan New York area showed residential contract increases over the corresponding period of last year. The month's record included 10,090 new single-family houses, compared with 8,373 contracted for during September, 1937.

Recovery progress in residential building is shown in the 1938 record by quarters. The dollar volume of contracts in the first quarter ran 33 per cent behind the first quarter of 1937; the second quarter of this year ran 15 per cent behind; but the third quarter ran 30 per cent larger in residential volume than the third quarter of last year. At the end of September, the cumulative dollar volume of residential contracts for this year was only 7 per cent behind the figure for the first nine months of 1937.

There has been no seasonal let-up in the flow of mortgage-insurance applications to the Federal Housing Administration. The volume of mortgages selected for appraisal continued through September at the rate, established last March, of \$22,000,000 a week. Mortgages accepted for insurance by the FHA continued at the rate of \$15,000,000 a week. With these indications of continued small house building, increased financing of large-scale private rental projects, and a huge public housing program barely started, the prospect for residential building appears exceedingly good.

Figures for the first half of October are as follows:

	Oct. 1-15, '38	Oct. 1-15, '37	October, '37
37 Eastern States Residential	\$ 50,634,000	\$ 32,173,000	\$ 65,485,000
Non-Residential	67,858,000	37,198,000	75,295,000
Public Works	52,391,000	21,746,000	48,031,000
Utilities	10,311,000	8,797,000	13,270,000
Totals	\$181,194,000	\$ 99,914,000	\$202,081,000

Schedule Association Meetings for Winter Season

THE following groups in the building industry have made arrangements for meetings and conventions to be held on the dates and at the places listed below.

1938

- Nov. 3-5—California Retail Lumbermen's Assn., Huntington Hotel, Pasadena, Calif.
- Nov. 9-11—National Assn. of Real Estate Boards, Schroeder Hotel, Milwaukee, Wis.
- Nov. 16-18—United States Building and Loan League, Palmer House, Chicago, Ill.
- Dec. 7-9—Carolina Lumber & Building Supply Assn., Hotel Str Walter, Raleigh, N.C.

(Continued on page 74)

Install the Door that NEVER NEEDS ADJUSTMENT!

- Always quiet coasting action
- Very simple installation
- Popularly priced for volume sales with good profit for the contractor

Your first installation of a Ro-Way Model "J" Door will offer the most convincing proof of the many advantages it offers both you and your customer.

First of all, you will find it easier to sell, because the simplicity of construction, absence of adjusting devices, the self-equalizing spring lift and the popular price, offer an irresistible combination.

Second, when you finish the job and note time saved in installation and the fact that you are not going to be called back for adjustment service, you will find more net profit on the job.

One Basic Patented Improvement

—gives the Ro-Way Model "J" its amazing acceptance. It's so simple you wonder why it has not been used before. Instead of two springs to supply lifting power separately to the two sides of the door, we use one Ro-To Live Spring . . . a single powerful coil which gives a smooth, evenly-balanced lift to both sides of the door at the same time . . . always. There is no side-drift; no turnbuckles or adjusting devices are needed. The Ro-To Live Spring (Patented) uses each end of the torsion spring for lifting power . . . no dead ends. Energy from each end of the live floating spring is applied to each cable drum . . . one drum revolves clockwise, the other counter-clockwise. Vertical tracks attach directly to door jamb. No track brackets used. Ball bearing steel track rollers have built-in rubber tires . . . will not stretch or become loose. Cast-steel preformed lifting cables are used. These features insure quieter operation. Headroom requirement, 9" to 14". Sideroom requirement, only 3 1/4". Write for descriptive folder and price list.

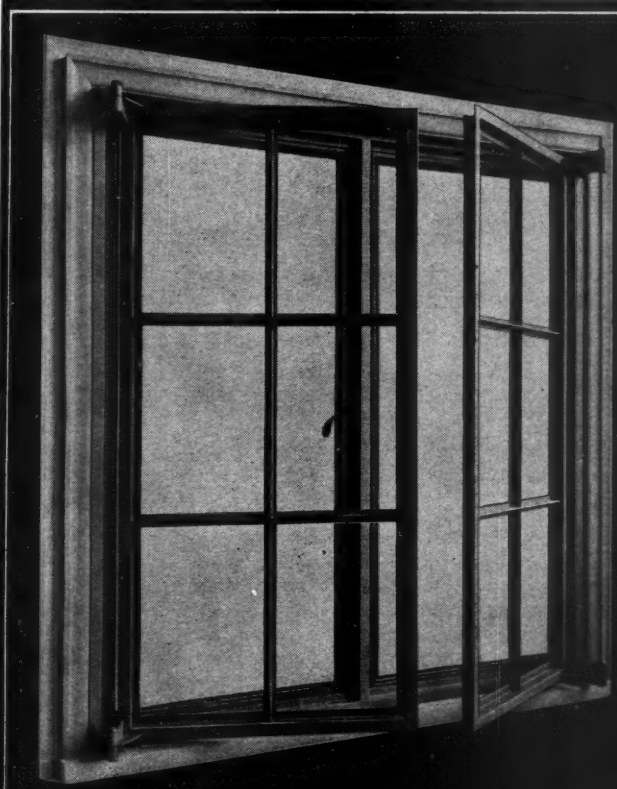
ROWE MANUFACTURING CO. 773 Holton St. Galesburg, Ill., U.S.A.



Rō-WAY
Model "J"
WITH
Rō-To Live
SPRING

**BOTH
ENDS
WORK**

Other Models of Ro-Way Doors are available for all sizes . . . all buildings . . . electrically operated if desired.



HOPE'S WINDOWS

Give You Advantages
that CLINCH SALES

● Hope's Steel Casement Windows enhance a building's appearance and harmonize perfectly with traditional or modern architecture. Carefully constructed to fit weather-tight and to open and close easily. Their compactness of steel sections insures maximum light and ventilation area. Hope's metal casements cannot shrink, swell, warp, twist or rattle. They are easily cleaned.

And Hope's Windows are priced to sell even in today's market, at a very worthwhile profit to you.

HOPE'S WINDOWS, INC., Jamestown, N. Y.

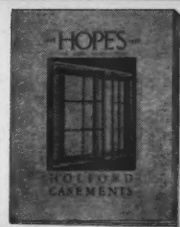
HOPE'S WINDOWS, Inc.
Jamestown, N. Y.

Send copy of descriptive literature of Hope's Windows and dealer proposition.

Name _____

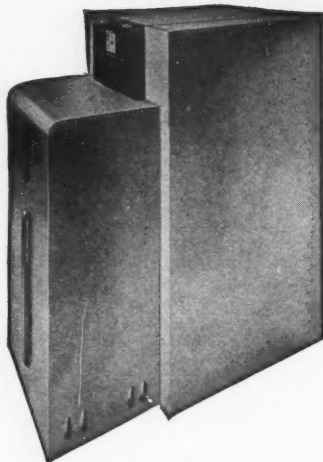
Address _____

AB-6 _____



1818 The Name Guarantees 1938

That front stoop is available to cover the oil burner. If you burn coal, you leave off the stoop. If you go back to oil, the stoop's all ready to put over the burner again.



A Three Fuel Boiler

That Stings The Fuel Bill



Don't make no difference what you burn. Coal, oil, gas or even soap bubbles, this Yello-Jacket Boiler of ours has its stinger working.

It'll raise a lump on the fuel bill, as big as a goose egg, that no amount of

old fashioned mud or any of your fancy bottle stuff will budge.

Once this Yello-Jacket of ours gets ter working, the fuel bill starts on the run.

But they ain't no bill what can run so fast as not ter be caught up with, and get stung.

Reckon right now, your a saying, I ought to be made president of the Ananias Club, for as a fancy liar I have 'em all backed off the boards.

If had the time to explain the insides of this Yello-Jacket, you'd apologize and feel more'n a little sorry fur what you said.

But never mind. You can square yourself by sending fur the printed matter about it, and get on the inside of its insides, and see fur yourself.

Hank Hinds

BURNHAM BOILER CORPORATION
Distributed Through Wholesalers
Irvington, N. Y. Zanesville, Ohio
Branch Offices in All Principal Cities
Export Department: 50 Church St., N. Y. City

Burnham Boiler

NEWS—(Continued from page 72-D)

1939

- Jan. 10-12—Indiana Lumber & Builders' Supply Assn., Claypool Hotel, Indianapolis, Ind.
- Jan. 11-13—Middle Atlantic Lumbermen's Assn., Bellevue-Stratford Hotel, Philadelphia, Pa.
- Jan. 17-19—Northwestern Lumbermen's Assn., Civic Auditorium, Minneapolis, Minn.
- Jan. 17-20—Ohio Assn. of Retail Lumber Dealers, Deshler-Wallick, Columbus, O.
- Jan. 23-25—Mountain States Lumber Dealers' Assn., Shirley-Savoy Hotel, Denver, Colo.
- Jan. 24-26—Northeastern Retail Lumbermen's Assn., New York City.
- Jan. 24-26—Kentucky Lumber & Supply Assn., Brown Hotel, Louisville, Ky.
- Jan. 25-27—Southwestern Lumbermen's Assn., Auditorium, Oklahoma City, Okla.
- Jan. 31-Feb. 3—Michigan Assn. of Retail Lumber Dealers, Pantlind Hotel and Municipal Auditorium, Grand Rapids, Mich.

Seyfarth New IHC Advertising Manager

THE retirement of Frank W. Heiskell as advertising manager of the International Harvester Company, after 45 years of service with that company and the McCormick Harvesting Machine Company, has been announced. Mr. Heiskell was succeeded as advertising manager on October 1 by A. C. Seyfarth, former assistant advertising manager.

Mr. Seyfarth, widely known in the advertising profession, entered the employ of the Harvester Company in 1904, his first job that of a catalog writer. Successive promotions advanced him to chief catalog writer and copy chief, where he was in charge of all advertising copy production. He became assistant advertising manager in 1913.

Mr. Heiskell's entire business career was given to the service of the McCormick Harvesting Machine Company and the International Harvester Company. On August 1, this year, he rounded out his 25th year as advertising manager of the Harvester Company.



A. C. Seyfarth (left), new advertising manager of International Harvester who succeeds F. W. Heiskell (right), retiring after 25 years in that position.

Verifies American Builder's "25 to 40 Per Cent More Home for the Money Today" Theme

THAT the average cost of the American house this year is \$3,559, approximately \$850 less than it was 10 years ago, and yet the comparison of a 1938 house with a 1928 model is like comparing two automobiles of corresponding years, was recently pointed out by Frank Carnahan, secretary of the National Retail Lumber Dealers Association, after an analysis of Department of Labor statistics on average houses covering the 10-year span. In 1928, the figures show, the average cost of all types of dwellings was \$4,407. "It is estimated," Carnahan said, "that today's home buyer gets from 25 to 40 per cent more house for the money today than ever before. This can readily be appreciated when consideration is given the advances in design, construction, equipment, the improvements in quality of materials and the reduction in financing costs that have taken place during the past decade. "Architects, housing engineers, and builders have devoted years to perfecting living accommodations for Americans, and the result is a home designed with a minimum of waste space, made livable and utilitarian in every respect, and enhanced in attractiveness."

The Sink You Install



May Sell Your House

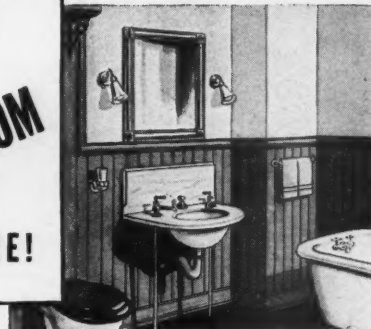
No housing feature appeals to women prospects more than a modern, easy-to-manage kitchen. Make it your sales ally by installing sinks, drainboards and working surfaces made of Armco Stainless Steel. Once the lady who has to keep things spick and span gets an eyeful of this hard, gleaming, tarnish-proof, easy-to-clean metal, she'll fall in love with your house. And what she tells her husband is sure to influence the sale.

We shall be glad to tell you where you can obtain Armco Stainless Steel sinks or sheet metal for building purposes. Just write to: The American Rolling Mill Company, 3181 Curtis Street, Middletown, Ohio.

ARMCO
STAINLESS STEEL

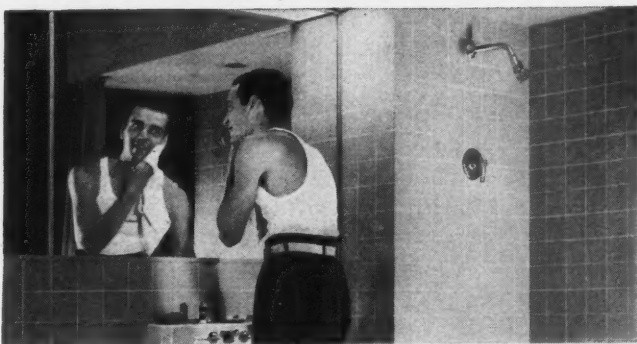


NO ONE EVER SANG IN THIS BATHROOM BEFORE!



And is it any wonder? Of all the dreary, drab bathrooms, Marge and Freddy's was one of the worst. Then one day Freddy heard how very inexpensively MASONITE PRESWOOD TEMPRTILE could give them gleaming, tile-like walls . . . right over their old walls.

NOW IT'S A DIFFERENT STORY



It's Sing Away Your Sorrows for Freddy every morning. What man wouldn't revel in this spotless shaver's haven? Notice the indirect lighting made possible by an offset wall of TEMPERED PRESWOOD.

THE MOST CHEERFUL ROOM IN THE HOUSE . . .



That's Marge's opinion. And she's thrilled at how easy it is to keep the MASONITE PRESWOOD TEMPRTILE spick and span. Just an occasional rubdown with a damp cloth. An indirect light over the tub is protected from moisture by an inner wall of MASONITE TEMPERED PRESWOOD and frosted glass.

• In new or remodeled homes, your clients will be delighted with the smart, permanent tile-effects you can provide them with MASONITE PRESWOOD TEMPRTILE. Lumber dealers have all the details. Also facts about new-building and remodeling loans under F.H.A.

Copyright 1938, Masonite Corporation

FREE!

It's Right

MASONITE

Please send me FREE samples and full information about MASONITE PRESWOOD TEMPRTILE and TEMPERED PRESWOOD.

MASONITE

THE WONDER WOOD OF A THOUSAND USES
A MISSISSIPPI PRODUCT

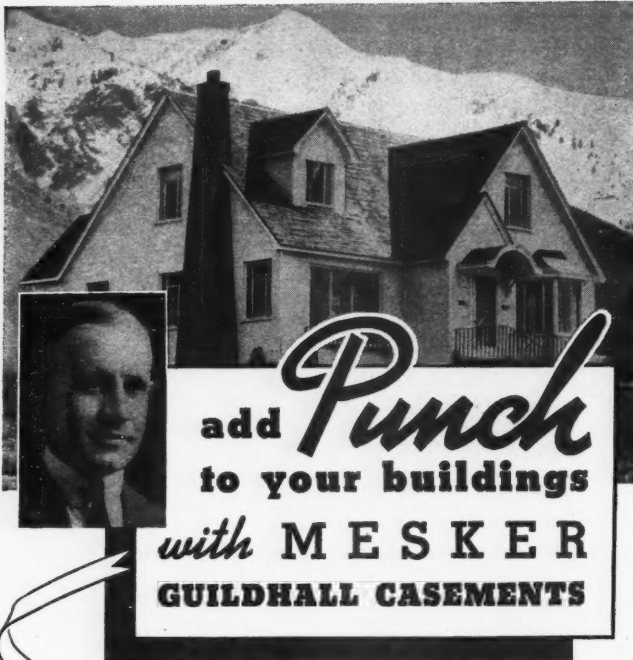
SOLD BY LUMBER DEALERS EVERYWHERE

MASONITE CORPORATION, Dept. AB-11
111 W. Washington St., Chicago, Ill.

Name _____

Address _____

City _____ State _____



add *Punch*
to your buildings
with **MESKER**
GUILDHALL CASEMENTS

"It's eye appeal that gets prospects inside the front door," says Robert A. Hummel, top notch Ogden, Utah developer and builder, "and I've found that windows play a mighty important part. That's why I use Mesker Guildhall steel casement windows... they add a real punch to my buildings and make selling much easier."

Thanks, Mr. Hummel! But don't forget that in addition, Mesker casements come standard equipped with Feather-touch Solid Bronze hardware... they open and close at a flick of the finger, they are fireproof, termite-proof, rust-resisting... you can wash them from the inside and you'll never get them to rattle, squeak or stick.

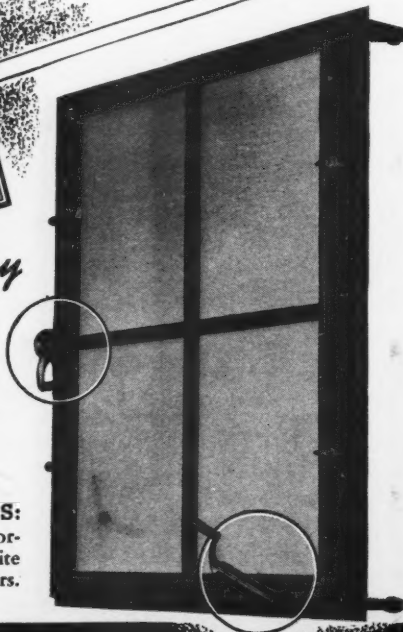


Write Today

for the big, free Mesker Handbook that gives prices and discounts on over 300 types and sizes of Mesker steel windows and state whether you are a Dealer, Builder or Owner.

REPRESENTATIVES:

There are a few territories still available. Write today for full particulars.



Mesker
SINCE 1879

MESKER BROS., 424 SOUTH 7th ST., ST. LOUIS, MO.

Red Cedar Shingle Names Simplified

TAKING another step forward in the elimination of superfluous and confusing grade names the Red Cedar Shingle Bureau has announced the adoption of a simplified set of regulations for its member mills covering the manufacture, marking and distribution of Certigrade red cedar shingles.

Hereafter the grade names on all No. 2 and No. 3 grades will be dropped and the shingles will be marked and referred to only by grade, length and butt thickness. On the No. 1 grade the names "XXXXX" or "Perfected" will be retained for 16"-5/2" shingles; "Perfections" will continue to designate No. 1 18"-5/2 1/4"; "Royals" will be used for No. 1 24"-4/2" and "Eurekas" will be used for No. 1 18"-5/2".

The grade names are really a carry-over by custom from the great confusion of names and brands that had their heyday before the adoption of uniform wooden shingle grade standards in 1931 with the assistance of the U.S. Department of Commerce, Bureau of Trade Standards.

No shingles bearing the Certigrade label will henceforth bear such confusing brands as "Extra Clear," "Premium Clear," "All Clear," etc. Grading rules followed by the Red Cedar Shingle Bureau call for all clear stock on No. 1 grades of all lengths and therefore no supplementary explanation of grade is required in marking. On the No. 2 and No. 3 grades, however, markings will show the number of clear inches called for on that particular grade, as, for example, No. 2 16"-5/2" Certigrade red cedar shingles will carry the phrase "12 inches clear and better."

Anthracite Stokers in Low Cost Homes

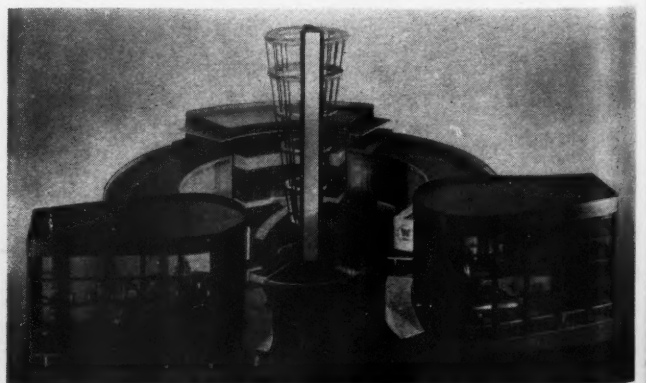
TWENTY-TWO new homes erected by the Goodnow Realty Company in the new "Rosemont" development will be equipped with automatic Anthracite stokers, according to a statement made by W. P. Loer, field representative of Anthracite Industries, Inc.

Mr. H. C. Goodnow, president of the realty company responsible for the "Rosemont" development, has advised the Iron Fireman Sales Corporation of Washington, D.C., who made the heating installations, that he is going ahead with the erection of twenty-six additional homes, and will install the same kind of heating equipment. The homes are built to sell for \$5,250 to \$5,450 and contain five rooms each, with tiled bath and shower, deluxe kitchen with modern refrigeration, weather-stripping and insulation throughout.

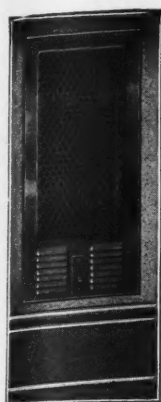
These anthracite installations have created considerable comment from other residential developers in the section.

Bak-A-Namel Appoints Officers

AT a recent meeting of the board of directors of Bak-A-Namel, Inc., Los Angeles, Calif., manufacturers of enamel-finished flexible wall board, the following appointments were announced: Benson A. Talbot, president and general manager; Lysle T. Burgess, vice-president; Stanley K. Burgess, secretary-treasurer; T. E. Duro, general sales manager, and W. W. Dosser, in charge of plant operations.



SHOW WINDOWS of electricity—Model of the Westinghouse Electric building at the New York World's Fair 1939. The building's two great wings will be 55 feet high, with a floor area of 4500 square feet. The great fountain in the center court, 115 feet high, will play a "synchronous symphony of color, sound and water."



ELECTRIC QUIKHETER

Quick, Clean, Safe
ECONOMICAL

To add comfort and promote health by eliminating that chilly feeling in bathrooms, children's bedrooms, dressing rooms, etc. — on days when it doesn't pay to have the regular heating plant in operation — install the **FA Quikheter**, flush type. It furnishes quick, safe, clean, economical heat by taking *cool air from the floor* and moving it up through and out of the heating chamber with a *velocity* necessary to circulate the warmed air *throughout* the room.

Furnished in small sizes of 1000, 1250, and 1500 watts, and large sizes of 1500, 2000, and 3000 watts capacity.

Frank Adam
— ELECTRIC COMPANY —
ST. LOUIS

HOTEL McALPIN

"A Great Hotel"

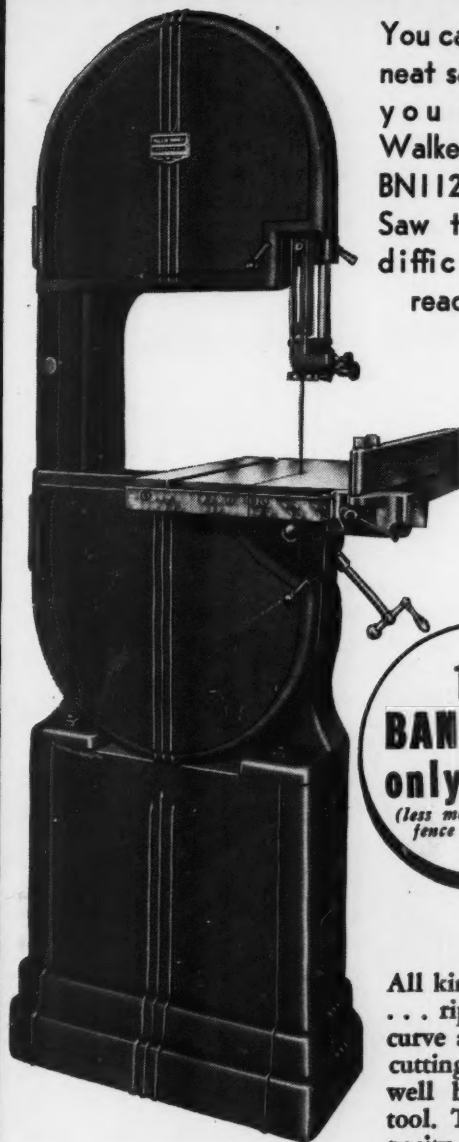
from \$2.50 a day, single
\$4 and \$4.50 double

Broadway at 34 St., N. Y.

Under KNOTT Management
JOHN J. WOELFLE, Manager

TO BUILD PROFITS

--START YOUR JOBS
IN THE SHOP!



You can pocket a neat saving when you use this Walker - Turner BN1125 Band Saw to prepare difficult cuts ready-to-fit.

16"
BAND SAW
only \$98⁵⁰
(less motor, ripping fence and base)

All kinds of work . . . rip, cross cut, curve and contour cutting are done well by this one tool. The 12" capacity saw, running at a speed of 2900 feet of saw teeth a minute, rips straight or makes accurate angle cuts, arcs, scrolls, any pattern as fed. A patented table tilting device bevel-cuts any angle to 45°.

Send for the NEW 1939 CATALOG, which gives full details about the many safety and precision features of this fine saw, which sells at a bargain price. Walker-Turner Co., Inc., 10118 Berckman St., Plainfield, N. J.

WALKER-TURNER
Engineered **POWER TOOLS**

CUT WINTER CONCRETING COSTS... GET BETTER CONCRETE

with
SOLVAY
TRADE MARK REG. U. S. PAT. OFF.
Calcium Chloride

Here's the way to get extra cold weather protection . . . to get higher quality concrete, at the same time cutting your winter concreting costs.

Solvay Calcium Chloride added to the mix gives you these money saving advantages:

1. Decreases time during which protection is required.
2. Accelerates the set—provides high early strength.
3. Permits earlier removal of forms — less forms required.
4. Increases ultimate strength as well as early strength.
5. Produces denser, harder, more waterproof concrete.
6. Works with either standard or high early strength Portland cements.
7. Permits earlier finishing — reduces expense of overtime.
8. Simple, easy to use and exceptionally low in cost.
9. Dependable—has been used by contractors for more than twenty-five years in millions of dollars worth of concrete construction.

MAKES *Better* CONCRETE

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET NEW YORK, N. Y.

Kindly send me complete information on the use of Solvay Calcium Chloride for winter concrete protection.

Name _____

Address _____

City _____ State _____

24-11

LETTERS from Readers on All Subjects

Facts, opinions and advice
welcomed here

First Prize Award

Salisbury, Maryland.

To the Editor:

We are enclosing a list of the subscribers to the *American Builder* which we have previously been sending you from our Salisbury office. We are correcting this list and will let you hear from us promptly concerning the renewals for another year. We are also asking the Branch Yards to do the same thing.

We take this opportunity to congratulate you for being awarded first prize for this publication. It is, indeed, a very fine magazine and we hope you do everything you can to assist us in impressing upon our subscribers just how good this magazine is. We have a feeling that some of them are not getting as much benefit from the *American Builder* as they should get. It is very gratifying to us to note the success you are making and we certainly hope you will keep up the good work.

E. S. ADKINS & COMPANY
(signed) Harry C. Adkins.

"Honest" English Housing Article

Marquette, Michigan.

To the Editor:

I want to congratulate you on your article in the September number of the *American Builder* regarding British housing, as it is about time someone told the American public that there is no comparison between our houses and those over there.

I spent two years in London as Consultant on the design and construction of theatres both in England and the Continent, for Paramount Publix Corporation of New York, so had ample time to see how houses were built.

I have often wondered why all these commissions composed of "Experts" spent the time and money to go and study housing on the other side. I guess they convinced others to put up the money and they had a good time. The trouble with most of them, along with many of our "Celebrities" is the fact that most of them are just parrots and repeat what they have heard others say.

I didn't have any intention of going on such a long tirade so will sign off by stating that your article is the first honest one I have read and hope that all connected with building will get a chance to read it.

WILLIAM R. BAJARI,
Designer—Builder

Reads and Uses

Cedar Rapids, Ia.

To the Editor:

We wish to thank the *American Builder* for the fine way in which it presented the two of our houses published in the last issue.

It was also nice to hear you say that the houses added something to your home design section.

We have always liked your magazine and not only read it but actually make use of it in design and construction. Your editorials I cut out and send to my newspaper friends when they become a bit confused about present day construction issues.

Thank you again.

McKAY CONSTRUCTION CO.,
Designers & Builders.

By Bruce McKay

Wants Details of Cooler

Kennett, Missouri

To the Editor:

I wonder if you or any of your many readers can give me any information in regard to a homemade cooling unit like those used

(Continued to page 80)



One Pane Windows Glazed With Clearlite are Easy On The Eyes!

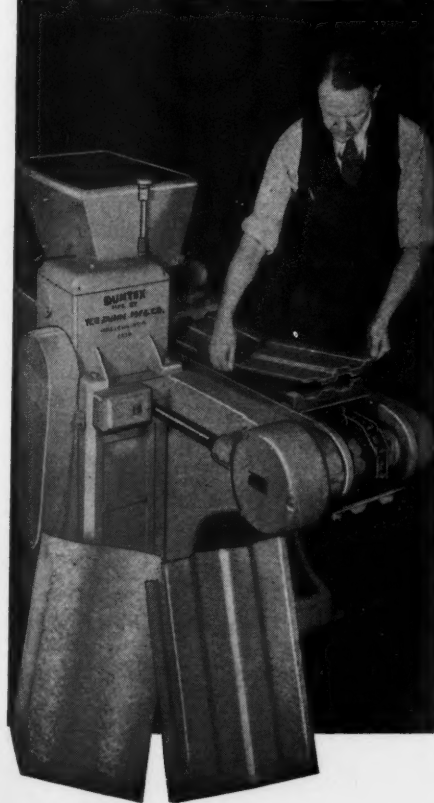
One pane windows permit an unobstructed view and lessen eye strain. With this better vision there is also a greater percentage of light transmitted than through multiple pane windows. With the trend to larger areas of glass in homes and buildings of all types, consider the use of one pane windows and specify Clearlite Quality Glass.



EASY ON THE EYES

FOURCO GLASS GO., CLARKSBURG, W. VA.
Branch Sales Offices: NEW YORK • CHICAGO • FORT SMITH, ARK.

PROVEN EARNING POWER



When DUNBRIK Manufacturers show sales of three million brick per year with production costs as low as \$5.00 per thousand—others with selling price of 100% over costs—it proves the great earning power of this line-production brick machine.

These enviable records are the result of producing a superior product,—lighter weight, greater strength, lower absorption, absolute accuracy, and with true corners. In addition, multiple sizes of standard brick (DUNSTONE) can be produced that permit hollow, insulated wall construction at cost level of frame.

Write today for new book "4 Keys to Success" and learn about this wonderful machine, permitting large production with only one or two men and costing but a fraction of what would be required for other processes of equal capacity.

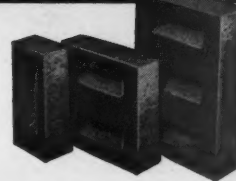
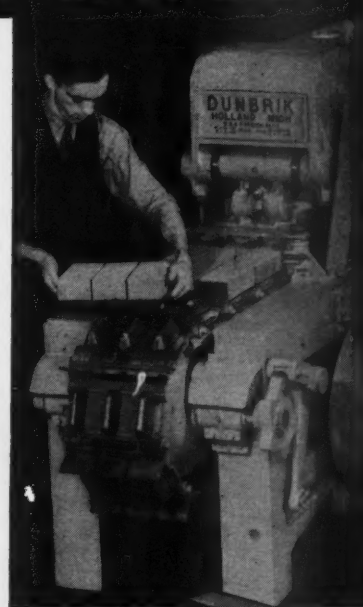
DUNTEX ROOF TILE MACHINE

With this machine you can dominate the vast roofing material market with a product unequalled in value, permanence, beauty and fire safety. Your manufacturing costs are low, investment moderate, and selling prices offer attractive profit. Send today for "DUNTEX Survey."

W. E. DUNN MFG. CO.

450 W. 24th St.

Holland, Michigan



In St. Louis, Mo., Harry Hardt's slogan, "Homes from Builder to You," is indeed well-known.

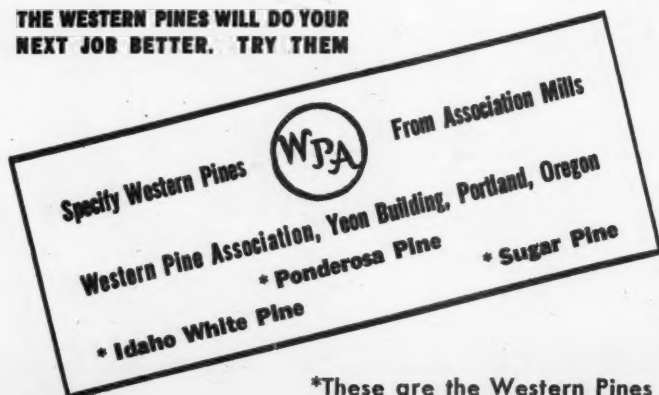


"THE *WESTERN PINES LOCK OUT DOOR TROUBLES"

SAYS Harry Hardt

● "I make my doors exclusively of Western Pine," says Harry Hardt. "They're trouble-free woods. They mortise quickly and easily for locks and hinges . . . They paint economically . . . It's hardly ever necessary to re-fit them . . . They give the home-owner carefree service for years and years . . ."

THE WESTERN PINES WILL DO YOUR
NEXT JOB BETTER. TRY THEM



*These are the Western Pines

LETTERS

(Continued from page 78)

by so many people in Imperial Valley.

My meager information is as follows: a wooden framework is fitted outside a window, inside this is stretched poultry wire interwoven with excelsior or straw which is kept moist by a constant play of water. In front of this wire is placed an ordinary electric fan, which pulls the outside air through the moist excelsior.

J. T. HALL,
Contractor and Builder

Wants Plan for Tool Case

To the Editor:

Elyria, Ohio

I think you are in a position to tell me where I can get plans for a portable carpenter's tool case.

Will gladly pay for plans that would result in my having a case that would always be just right. Would you please let me know if you can?

C. H. HANCE

Built Three Homes

To the Editor:

Waterbury, Conn.

I wish to thank the Naugatuck Lumber Company for the courtesy of sending the *American Builder* to my address.

I consult this quite frequently, in fact I have built three homes and used a great many ideas from the *American Builder*. Incidentally, the lumber for the three homes was purchased from the Naugatuck Lumber Company.

THE BRISTOL COMPANY,
C. W. Leonard, Purchasing Agent.
* * *

How "TruCost" Figures Any House

(Continued from page 66)

total of 48 feet. Being $\frac{1}{2}$ pitch, 42 percent, or 21 lin. ft., must be added for these three. The rear gable is 24 ft. wide and, being $\frac{1}{3}$ pitch, 20% thereof is 5 feet. The left side of the rear Bedroom gable is provided by the main gable but the right side is "duplicated." Therefore, add 8 lin. ft. for half the span of 12 ft. plus 20% thereof and the grand total will be $160 + 21 + 5 + 8$ or 194 lin. ft. of cornice.

Rule: List partitions COLLECTIVELY shown cross-wise and then vertically (or vice versa) on the plan for each floor.

By "collectively" is meant the grouping of the partitions that equal the extreme length or width of the house. To illustrate, starting from the top, the front walls of the rear Bedroom and Kitchen equal the width of 24 lin. ft. List 7 for the rear of the bathroom, 3 for the closet, 11 for the Bedroom, 24 for rear of Living Room Library and 10 to wind up the cross-partitions. Vertically, from left to right as in reading, list $2 + 2 + 42 + 4 + 12$ to make a total of 152 lin. ft. of partitions.

Rule: The perimeter gives the linear feet of Inside Finish of Outside Walls for the first story.

In this case, 160 lin. ft. is listed for this unit of construction. This cannot be included with the outside walls because gables and decorative dormers are not finished inside and $1\frac{1}{2}$ and 2 story houses have no interior wall finish the depth of the second floor unit whereas the outer surface is finished.

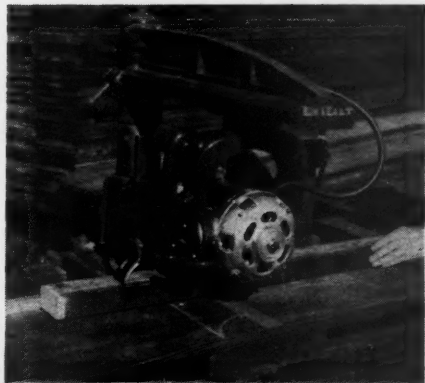
The opening units of doors and windows need no explanation. It's simply a case of counting them and adopting some size as being standard. The extra cost of mullion or triple window frames is off-set by the saving in the cost of the trim; so the cost in place is always equal to the cost of the number of single window units. Porches and other units covered by the *TruCost* tabulations are also easily understood so this article can be concluded by simply saying:

Compute the actual surfaces of walls, floors, roofs and other of the component units of a house, count the doors

(Continued to page 82)

DeWalt Announces New Low Priced GV Model

No other low priced woodworker offers so many patented features as this new type GV DeWalt. The same world-famous DeWalt principles, yet light in weight and easily carried right to the job. There is a reason why the up-to-the-minute contractors of the country are using DeWalt Machines. The tremendous savings have surprised most critical builders. Mr. Worrall writes, "Saves \$550.00 on one operation, any wonder I am enthusiastic."



EASY TO OWN—Here is a low priced model you can buy on Easy Payment terms. It has all the flexibility and accuracy of heavier DeWalts. Ideal because easily portable right to the job. Quickly financed through the savings effected.

MAKE A DATE NOW AND LEARN HOW

America's leading builders save 20 to 30%. We'll show you how right on your job—no obligation. Write today.

DE WALT
320 FOUNTAIN AVE.
LANCASTER, PENNA.

Cottage or "Castle" FITS EVERY PURSE AND PURPOSE



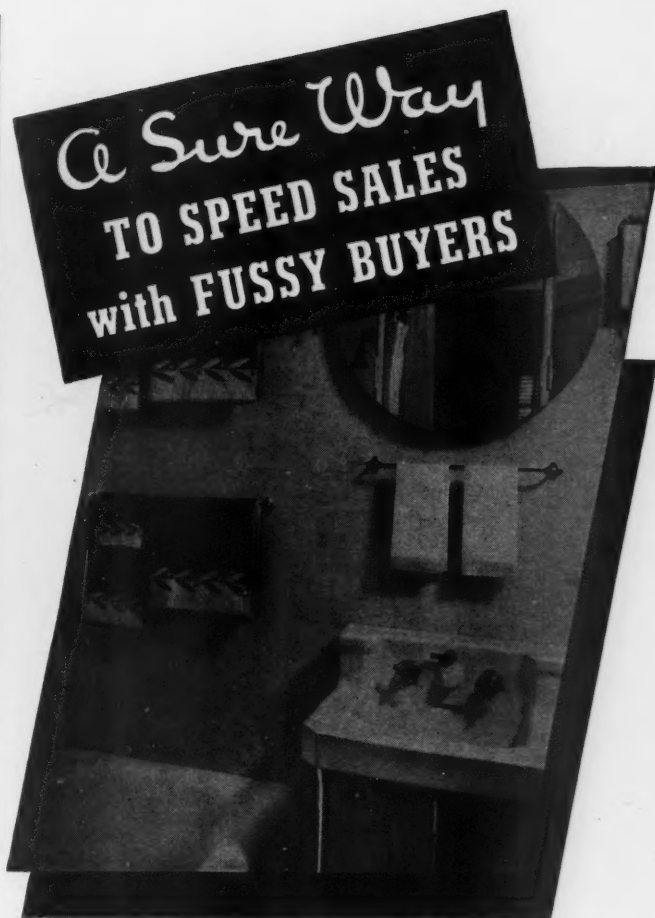
No building budget is too modest nor plans too pretentious for "OVER THE TOP" Door Equipment. Its simplicity pleases every prospect . . . simplifies installation . . . keeps costs low. It's the choice of particular people . . . city citizens and rural residents. Builders everywhere have rapidly recognized this . . . that's why today "OVER THE TOP" Door Equipment, a Frantz Guaranteed Builder's Hardware product, is the leader of the lot. Why fuss with failures . . . sell and install the "over head" device that takes less labor and makes you more money. Write today for facts.

FRANTZ MFG. CO., STERLING, ILLINOIS

ONLY 2 1/4 IN.

Headroom Required

Low ceilings, which eliminate many types of "over head" doors, offer no problem to "Over-the-Top" Door Equipment. If a 13/4" door is used, then 2 1/4" of headroom is all that is required; thicker doors need proportionately more.



MR. and Mrs. Prospect look over one of your jobs. They like it. The sale "looks good" . . . and then the Missus, who has been reading up and looking about . . . hesitates over those walls.

She's fussy. She wants "the last word" in construction . . . she wants permanent, beautiful and easily cleaned walls in the '38 style.

That's where colorful, successful Tile-TeX, the new decorative wall material, welcomes her inspection and helps your sale. She readily admits the modernity of Tile-TeX . . . instantly admires the exquisite colorings . . . visualizes how easily they can be kept clean.

For new job . . . or modernized . . . Tile-TeX Walls—and Floors—offer low cost and high efficiency . . . and our nearest Distributor has a real fact story for you. Write for his name and a copy of the new folder, "Decorative Walls By Tile-TeX."

TILE-TEX Company

CHICAGO HEIGHTS
ILLINOIS

**OR YOU MIGHT CARE TO REPRESENT
US IN YOUR TERRITORY**

The Tile-TeX Company
Chicago Heights, Illinois

If my territory is open, I would like to have complete information on the Tile-TeX Dealer's proposition.

Name _____
Address _____

PLAN

A KITCHEN FLOOR THAT HELPS SPEED SALES



**Armstrong's Linoleum
gives your properties
extra customer-appeal**

THIS COLORFUL FLOOR sets off the modern kitchen to best advantage. It is Armstrong's Linoleum No. 6580. The walls are Armstrong's Walnut Linowall—a money-saving, linoleum-like wall covering.

LET the kitchen help you sell or rent faster. Brighten it up with a modern floor—and then tell prospects: "This floor is Armstrong's Linoleum."

People know that name. Years of national advertising have made *Armstrong* stand for quality in resilient, colorful floors. Your prospects know, too, that Armstrong's Linoleum is long-wearing, and easy to keep clean and bright.

You'll find Armstrong's Linoleum Floors reasonable in cost and inexpensive to install. With more than 200 patterns and five thicknesses to choose from, it's easy to select just the right floor and still keep well within your budget.

Find out more about how Armstrong's Linoleum can make your houses sell or rent faster. Write now for your copy of our color-illustrated book of sales-building room designs.

Armstrong Cork Company, Building Materials Division, 1218 State Street, Lancaster, Penna.

Armstrong also manufactures Asphalt Tile, Reinforced Rubber Tile, Cork Tile, Linotile (Oil-Bonded), and Linowall.



RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE

Armstrong's **LINOLEUM**
and **RESILIENT, NON-CERAMIC TILES**

CORK TILE • LINOWALL • ACOUSTICAL CEILINGS

How "TruCost" Figures Any House

(Continued from page 80)

and windows, as shown by *TruCost* tables and **FIGURE ANY HOUSE**. Its all just as simple as two plus two once one has figured a few houses.

"Why don't you give us some idea about labor costs?" is the second of the most-asked questions I have encountered the past few months and beginning next month I will give you the **ACTUAL** records for a few houses and, I hope, explain why the **ONLY** reliable labor cost records must be **YOUR OWN**.

* * *

Flood, Fire, Hurricane

(Continued from page 27)

suffered as they did in 1936 although they were better prepared this time.

Along the coast the damage was most severe due to the overpowering tidal wave that swept in from the ocean, carrying boats, piers, houses and, in some cases, whole communities away. The wreckage of structures of all kinds was strewn across miles of land along the coast. In many cases even the land where large colonies of summer homes had been standing was completely obliterated.

The first reaction of a visitor to the region was one of hopeless despair, but he soon found a determined air, "we'll rebuild—better than ever." At Narragansett, a summer resort community below Providence where the entire main street was practically washed away, a philosophical resident remarked, "That street always was too narrow and the traffic jams were terrible. Now we'll rebuild it wide enough and put up some really fine buildings."

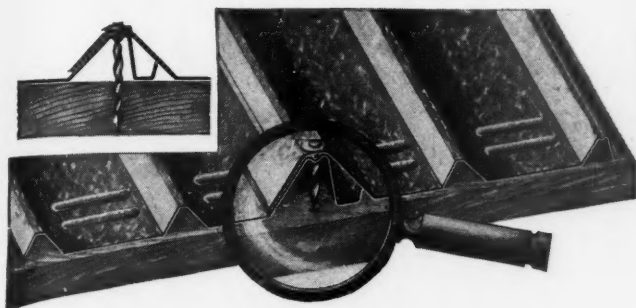
It is true that a large part of the damage to structures was sustained by poorly built buildings. Flimsy summer cottages resting on light foundations without bolts floated easily away. Poorly braced and constructed structures, when their foundations were affected, caved in. Frequently, well built structures on sound foundations properly anchored in place stood firm and undamaged, while the weaker sisters crumbled away.

Building industry men interviewed were agreed that emergency repairs would keep everyone in the industry at top speed this fall and winter. By next spring they will get around to new construction, which will run into a huge volume.

Building activity will be affected for many years to come, and improvements and new construction that in staid New England have long been deferred will now have to be done. Resort and cottage building will constitute an important volume of new business. New business structures, including shops and store fronts, will be greatly in demand. The rural lumber dealers and builders will be kept busy with a huge volume of barn and farm structures. It is estimated that more than 500 barns were destroyed in Massachusetts alone.

Aside from the extensive volume of private construction called for, there will be hundreds of millions of dollars in public works and rehabilitation. One of the important items will be new sea walls for towns along the ocean that have heretofore felt they were beyond the reach of the angry waters. As in the case of Narragansett, many communities will have to be completely rebuilt, with new streets located further inland protected by huge sea walls.

(Continued to page 86)



EDWARDS TROFSEAM STEEL ROOFING

MORE PROTECTION FOR LESS MONEY

The next time a customer asks you for a price on an inexpensive metal roof show him TROFSEAM. Explain how the trough carries away every drop of water that might ever get over the crimp. Fill the demonstration box with water and let him see that leaking into the building is impossible. Then tell him the price. He will prefer TROFSEAM because it costs him no more than ordinary roofing.

Many builders are doubling their roofing volume with TROFSEAM. You can do it too. Write immediately for TROFSEAM Demonstration Outfit and Roofing Catalog No. 92.

THE EDWARDS MANUFACTURING CO.

542-562 Eggleston Avenue

Cincinnati, Ohio

Every Home Should be Calked

STOPS DRAFTS AND LEAKS—CUTS FUEL BILLS



COLD ROOMS?



DRAFTY DOOR FRAMES?



CALK WITH PECORA



CALK WITH PECORA

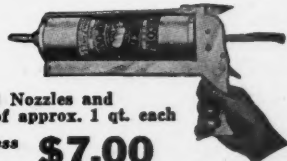
A properly calked home is easier to sell, pleasanter to live in. This weather-proof protection can be readily provided by the builder at small cost.

CALK all Joints

WITH PECORA COMPOUND

Calk all window and exterior door frames with Pecora. Money cannot buy a better material. Used on all important projects by leading architects. Properly applied, Pecora will not dry out, crack or chip. Available in bulk or in non-refillable metal cartridges of approximately one quart size for use with the new improved Pecora High Pressure Calking Gun, illustrated below.

This Gun



With 3 Nozzles and 4 Cartridges of approx. 1 qt. each
Shipped Express Collect for **\$7.00**

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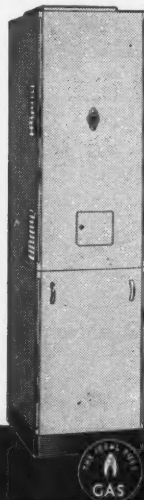


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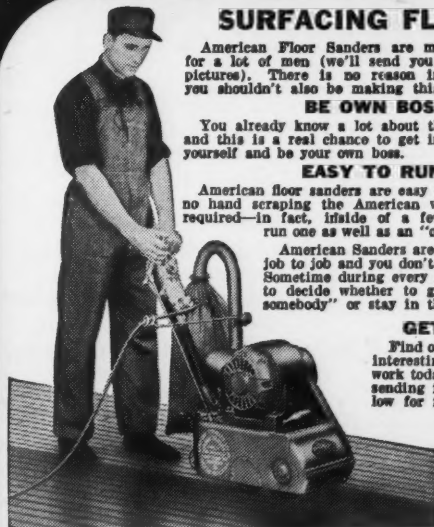
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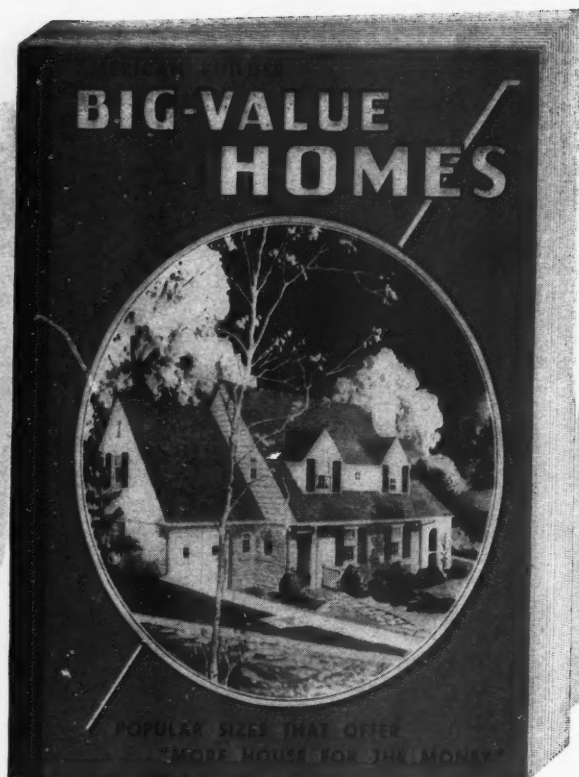
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(Continued from preceding page)

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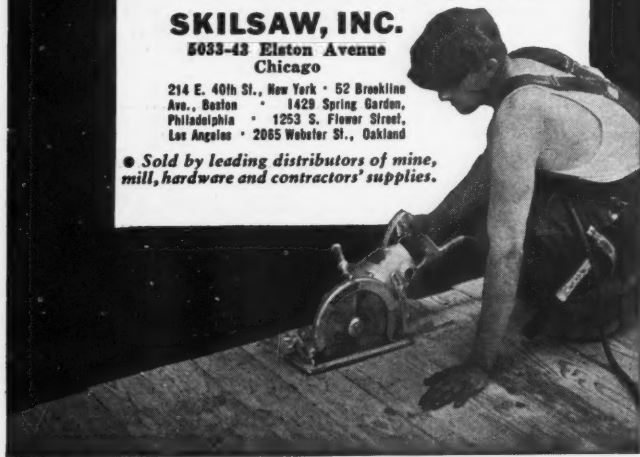
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Flood, Fire, Hurricane

(Continued from page 82)

One of the big problems from the hurricane is fallen timber. It is estimated that 60 million board feet of lumber is on the ground in Maine alone, and there are millions of feet down in Massachusetts, New Hampshire, Vermont and other states in the hurricane area. It is reported that the Federal Farm Security Administration is considering setting up portable sawmills to salvage this lumber. Something must be done, as in its present state it constitutes a serious fire hazard. This raises a problem among lumber dealers as to how such lumber will be marketed and at what prices.

* * *

Glenayre Homes—

(Continued from page 33)

have greater demand for new homes than any other country. I say this although England with one-third of our population built 3,000,000 new homes during the past ten years. We have before us the biggest building boom this nation has ever known. With these opportunities, nothing should stop us.

How Glenayre Homes Are Planned and Built

Before launching Glenayre homes, I called on officials of FHA and am happy to say that they responded enthusiastically. I called attention to the fact that while they informed the public that the Federal Government would insure loans up to 80 per cent of the value in homes, these liberal terms were exceedingly rare in Chicago. It was our task to determine where in our metropolitan area could be placed a possible home development that might attain a 100 per cent rating. Several days were devoted to a tour of inspection. Many locations in which all public improvements were installed and paid for and which were served properly by transportation, schools, churches and shopping facilities, failed to qualify because of improper land utilization. They were developed when the public understood less and appreciated less about this requirement. We were left with no alternative but to select a new location that had all the prerequisites of a sound development, including proper land utilization as set down by FHA and accepted by all practical developers. Accessibility of the Glenayre location was unquestioned. It is served by two high-speed suburban lines and several arterial automobile highways. Its surroundings offered a protection against undesirable encroachment, being flanked on two sides by golf courses—on another by a permanent forest preserve and on the fourth side by an established suburban community, making available all public improvements, complete shopping facilities, including chain stores, public and private schools and churches. We have an area of approximately 150 acres cloistered in a manner that provides perfect protection and the Home Federal Savings and Loan Association of Chicago is granting full 80% loans on homes for this property.

The method of arriving at an acceptable plot plan has been described briefly in the first part of this article. Four of the ten houses designed for the first site, and which are typical of the project, have also been illustrated in exterior and plan with comments on the features of each. Our staff architect, C. W. Lampe and Associates, in developing these houses, continually had in mind our objective to keep this development in per-

(Continued to page 88)

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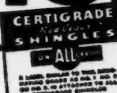
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OF AMERICAN BUILDER AND BUILDING AGE published monthly at Chicago, Illinois, for October 1, 1938.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Bernard L. Johnson, who, having been duly sworn according to law, deposes and says that he is the editor of the AMERICAN BUILDER AND BUILDING AGE and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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Glenayre Homes—

(Continued from page 86)

fect co-ordination. This has meant not only maintaining the proper relationship between all houses in the matter of harmonious design but also proper placing of each one on the site for a maximum number of enjoyable vistas when looking out of all rooms and, at the same time, planning so that anyone approaching the project receives an impression of a unified community. There are no disturbing electric light or telephone wires visible; all have been placed in underground conduits. Roads and drives are of crushed gravel; entrance walks are of flagstone; there are no public sidewalks. A large decorative flower garden divides the roadway as it enters the property between the stone and picket gate posts.

The project is fully landscaped according to the very complete landscape plans developed. These plantings include large specimen elms and maples, smaller trees, shrubbery and perennials. Certain of the features, such as swimming pools, garden pools, shelters, barbecue pits are of course not put in until the houses are sold, and then such further development is left to the owner's personal desires.

The building of Glenayre homes is under the supervision of Albert Nixon, our construction superintendent (brother of the author). All work is sub-contracted with the exception of painting, on which we run our own crew. This method, coupled with adequate preliminary planning to get the trades on the job at the proper time, has proved most satisfactory and efficient.

In choosing materials for our houses, we have constantly borne in mind the thought that these houses must include features which will offer the most in modern livability, charm, durability and low maintenance cost. Starting with the basement, we selected Jones & Laughlin Junior beams on steel "I" beams with poured reinforced concrete slabs for a solid, fireproof first floor. Framing lumber is kiln-dried and covered with Bildrite sheathing or U.S.G. asphalt coated sheathing. Lok-Joint lath and mineral wool in the ceilings provide additional insulation. U.S.G. Rocklath is used as a plaster base on interior partitions; ceilings are on metal lath. Briar Hill sandstone and brick are used as veneer materials on those portions of the house not done in red cedar beveled siding or half-timbering with stucco. Roofs are covered with asphalt, red cedar or slate shingles, according to the style of design. Gutters, downspouts, flashings and screens are all of Anaconda copper. Fenestra metal sash and local millwork wood sash are weatherstripped and glazed with Pennvernion and L-O-F glass. Among the interior finish materials used are oak and walnut parquet floors of Bruce block and Wood Mosaic flooring; Armstrong mastic tile and Azurite asphalt tile on kitchen floors; ceramic tile and Vitrolite in the baths. We selected Pratt & Lambert paints, Dutch Boy lead and oil, O'Brien varnish and Imperial wallpaper for decorating materials. Convenience equipment and accessories include: General Electric, Bryant and Sunbeam gas-fired automatic winter air conditioning, Crane gas-fired hot water heaters and enamelware fixtures, Fiat and Lehman plate glass shower doors and curtains, Morton medicine cabinets, Square D and Cutler-Hammer fuse load centers, Jefferson Electric supplies, Rittenhouse door chimes, Colonial fireplace dampers, Graniteware laundry trays, Midwest kitchen ventilating fans, St. Charles metal kitchen cabinets, National cabinet hardware, Schlage locks, and McKee upward-acting garage doors.

(Continued to page 90)



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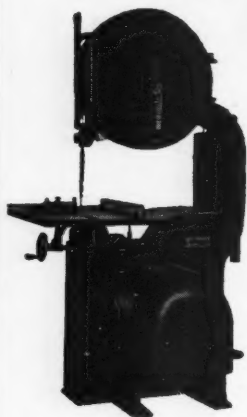
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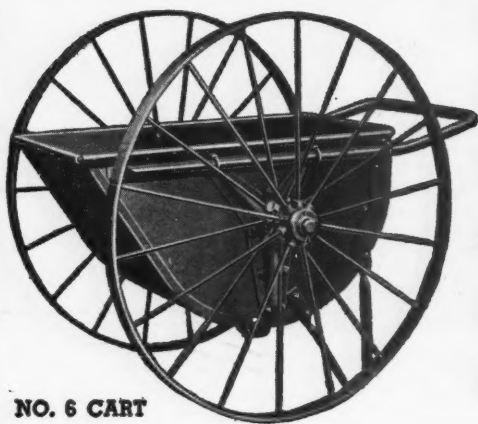
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EASILY WHEELED • EASILY DUMPED

STERLING WHEELBARROW CO.
MILWAUKEE, WISCONSIN

Glenayre Homes—

(Continued from page 88)

Having pointed out the important highlights of our Glenayre Homes project, in conclusion I believe I can truthfully say that we have met the challenge offered two years ago to prove the present opportunities for the home manufacturer. Properly planned, built and financed houses will attract buyers and sell themselves. Some of the operative builders are today abreast of this informed market; many more of them will unquestionably be meeting this demand for better homes in all size and price ranges in the near future.

* * *

Plywood Auditorium

(Continued from page 62)

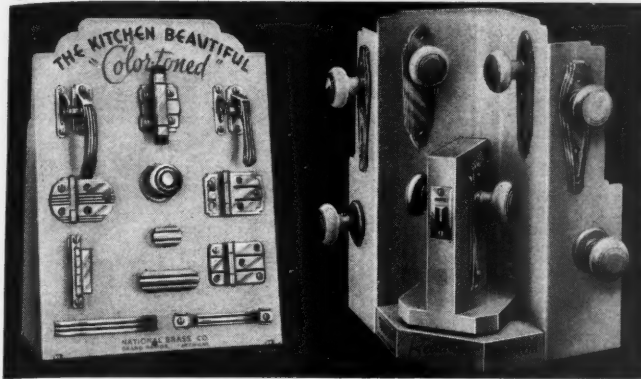
although somewhat conventional manner. The flush joint system provided for any type of decorative and protective finish, but experience dictated that a high gloss paint should be avoided. Any irregularity or unevenness of surface is high-lighted by gloss finish, while a flat, or particularly a rough or textured finish, tends to minimize them. On this particular job Rezitex, a synthetic resin base plastic type paint made especially for fir plywood, was gunned on. Two coats were used. This paint provided a stucco-like texture, and while waterproof, fire resistant, and practically impervious to weathering, it is quite economical. The appearance is comparable to good stucco or masonry, and because of the light color has considerable insulation value from the standpoint of reflectivity.

Objectives of Designers Attained

The objective of the designers of the structure was, in addition to the more practical motives a rational consideration of a project that obviously called for emphasis on functionalism. Economy was a prerequisite, and yet it may be considered that the finished job lacks little from the standpoint of permanency or good taste. The structure was so designed that, if wanted, a natural division of the floor area may be made for separate group play or instruction. As a gymnasium it has ample size for regulation play—both floor area and head clearance. All points on the floor are clearly visible from any seat in the seating section, with exception of the extreme corner seats which lack a view of one basket. As an auditorium, it has adequate capacity and rostrum facilities for community gatherings. Although the capacity of the heating plant was reduced by one-third from the specifications given for the original conventionally designed building, it has been determined that the lowest outside temperature will not require capacity firing. The insulation efficiency of the sidewalls and roof construction accounts for the remarkable economy of fuel and size of heating plant.

The structure, because of its glued construction is quite rigid. The few nails and bolts used were for the principal purpose of making contact while the self-bonding glue set. Therefore, basically, it is comparable in construction and tension to a stringed instrument. It is accordingly presumed that the rigidity and tension account for its remarkably efficient acoustics. No professional acoustical tests have been conducted in the building as yet, but it appears from lay demonstrations that phenomenal values approaching those of the Mormon Tabernacle and a few European structures, will be found. Voices of many pitches seem to carry without reverberation.—E. A. Horn.

Profit "PARADE of COLOR"



Join with your dealer to earn Extra Profits for Both of You. Make his store your Headquarters, show customers "Color-toned" Cabinet Hardware and "Duralin" Door Trims of Color—create extra contract jobs.

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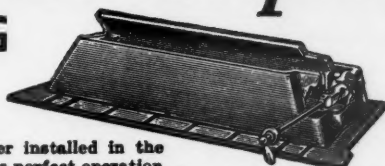
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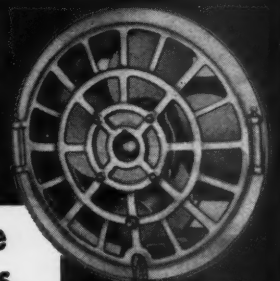
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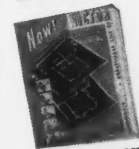
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THESE POWERFUL SAWS!

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Contractors, Architects, Dealers**

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277—Macklanburg-Duncan's 1938-39 Catalog—This is a 54-page compendium of useful information about innumerable items in the weatherstrip, moulding and trim line which builders and dealers will be glad to have on file. Calking and calking guns, house numbers, name plates, metal screen frames, door guards, etc., are only a part of this big line.—**MACKLANBURG-DUNCAN CO.**, Oklahoma City, Okla.

278—"Arkansas Soft Pine, for Sound Construction, for Beautiful Woodwork, a Handbook for Builders"—a book of 24 pages and covers profusely illustrated with items and their installation; also tables of safe loads, lumber actuary, grades to be specified for given uses, painting and finishing instructions, as well as general information.—**ARKANSAS SOFT PINE BUREAU**, 938 Boyle Bldg., Little Rock, Ark.

279—Radio Garage Door Control—The Barber-Colman Co. has issued a very interesting pamphlet featuring the Model C radio control for upward-acting garage doors, the outfit which opens and closes the garage doors from the automobile seat. Wiring diagrams and transmitting circuits are illustrated showing how this apparatus functions.—**BARBER-COLMAN CO.**, Rockford, Ill.

280—Crane Gas-Fired Warm Air Conditioner—A new 4-page circular gives full particulars of this new gas heater. Cut-away view shows how the inside is designed for efficiency, the outside for smooth, streamlined effect. It heats, circulates, humidifies and filters the air under an economical system of perfected self insulation.—**CRANE CO.**, 836 S. Michigan Ave., Chicago.

281—Wodack "Do-All"—A new circular presents this useful combination electric hammer and drill with complete mechanical specifications.—**WODACK ELECTRIC TOOL CORP.**, 4627 W. Huron St., Chicago.

282—Hoffman Hot Water Controlled Heat—A new 8-page brochure in color discussing the installation and operation of the Hoffman hot water controlled heating system in which an electric pump speeds up the circulation of the hot water to the radiators, a system adaptable to both new and old hot water heating systems.—**HOFFMAN SPECIALTY CO., Inc.**, Waterbury, Conn.

283—Young Heating Units—New data sheets present the Young type F.C. heating units for hotels and commercial buildings, and the Young unit heaters, types SH and TH, for shops and factories.—**YOUNG RADIATOR CO.**, Racine, Wis.

284—Modine Unit Coolers—"Comfort Cooling" is an 8-page data sheet describing the Modine blower type unit coolers for stores and offices. This unit filters, cools, dehumidifies and circulates the air, providing practically every function of summer air conditioning.—**MODINE MFG. CO.**, Racine, Wis.

285—Radio Shop Design—"The Sylvania Model Service Shop" is a little 16-page pamphlet with architectural working drawings and specifications for a model radio store and service shop, worked out by the experts of the Hygrade Sylvania Corp., radio tube manufacturer, for the benefit of radio dealers and service men. In urging its dealers to undertake modernization of their establishments, this company points out that with the assistance of local contractors and building material dealers, the ideas developed for the model service shop may be easily adapted to the individual needs of any radio retailer or service man.—**HYGRADE SYLVANIA CORP.**, Emporium, Pa.

286—Marlite Handbooks—Three impressive brochures of great beauty present Marsh wall products and explain how to install them. The first is entitled, "Marlite for Creating Beautiful Home Interiors," a brochure of 16 pages. A second is a companion piece, "Marlite for Creating Beautiful Commercial and Institutional Interiors." The third is an 8-page handbook, "Installation Instructions for Marsh Wall Products." It is filled with practical details and instructions for carpenters, showing them how to handle and install these modern wall materials.—**MARSH WALL PRODUCTS, Inc.**, Dover, Ohio.

287—Douglas Fir Plywood Sheathing—"Savings by the Score" is a new pictorial broadside illustrating the new Douglas fir plywood product for sheathing houses and other buildings, these large plywood panels carrying scored lines every 16 inches to match up with the wall studs for easy accurate nailing.—**DOUGLAS FIR PLYWOOD ASSOCIATION**, Tacoma, Wash.

288—Thermador Electric Water Heater—A new circular gives complete information concerning this economical insulated storage tank electric water heater which is especially adapted for use in suburban and country locations where low electric rates prevail. The safety, cleanliness and economy of this modern water heater are emphasized. A companion circular illustrates another modern home convenience, the Thermador head-to-heels electric bathroom heater.—**THERMADOR ELECTRIC MFG. CO.**, 2821 East Pico Blvd., Los Angeles, Calif.

289—Best Universal Locks—A new 12-page brochure gives a "preview" of new developments in door locks and padlocks equipped with the interchangeable core which gives greater security at much lower cost. The Best universal locking system deserves investigation and this interesting new catalog gives all the answers.—**BEST UNIVERSAL LOCK CO., Inc.**, 730 E. Washington St., Indianapolis, Ind.

290—Duplex Automatic Window Lock—Full information regarding this ingenious new ventilating burglar lock for double-hung windows is offered by the manufactures of the well known Duplex sash balances.—**DUPLEX INCORPORATED**, Los Angeles, Calif.

291—Styling Your Home—"Forty Exteriors in the Redwood Mode" is a new 28-page booklet showing 63 photographs of 41 different homes selected from various price classes and geographical areas. This is written from the point of view of the home owner. It is of special interest to retail lumber dealers, architects and contractors.—**CALIFORNIA REDWOOD ASSN.**, 405 Montgomery St., San Francisco, Calif.

American Builder,
105 W. Adams St.,
Chicago, Ill.

(Nov., 1938)

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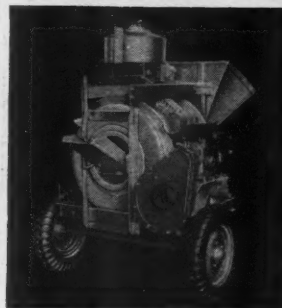
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For 35 years... The School for Builders

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3 1/2 S End Discharger



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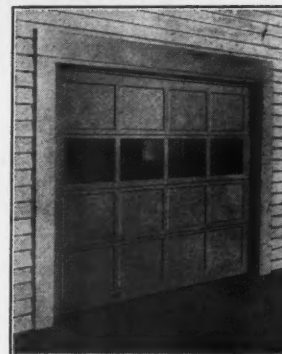
with the **IMPROVED SCHLUETER!**

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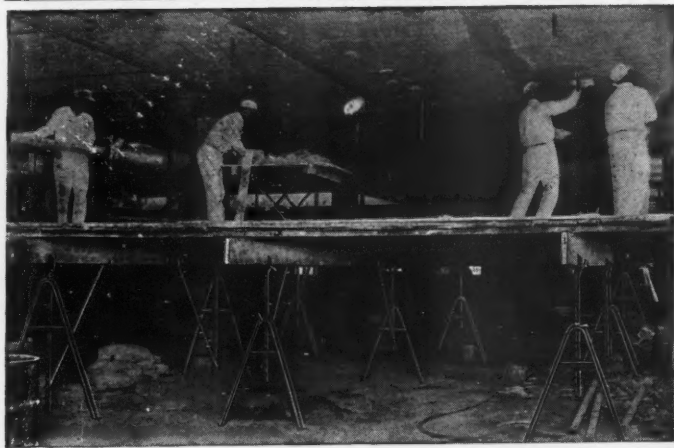
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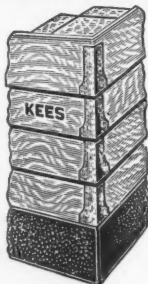
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Also
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NOTICE TO ADVERTISERS—Forms for the December number of the American Builder and Building Age will close promptly on November 15. New copy, changes, order for omissions of advertisements must reach our business office, 105 West Adams St., Chicago, not later than the above date. If new copy is not received by the 20th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.

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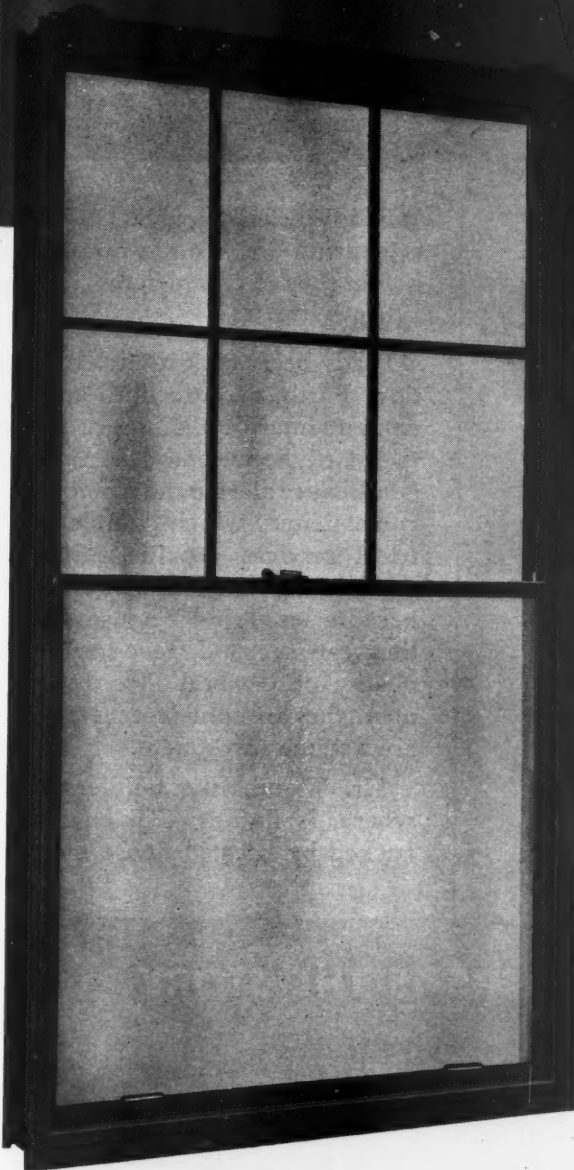
Such conduit may be planned for future telephone wiring additions as well as immediate needs. This helps sell houses, because telephones may be

installed at any time without exposed wiring, without piercing walls and floors.

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* **TUBULAR CONSTRUCTION OF SASH** gives improved appearance and adds greatly to the strength and durability of this new window.

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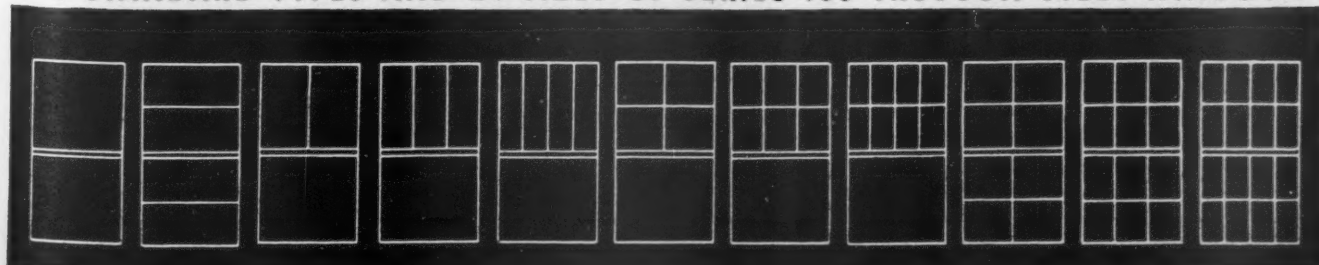
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5 STANDARD TYPES AND 24 SIZES OF SERIES 138 TRUSCON STEEL WINDOWS



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THIS IS THE BUILDER AND HIS LETTER



E. F. Wood Company

KIRKWOOD 2162-W



BUILDERS OF ST. LOUIS COUNTY HOMES

KIRKWOOD, MO.

October 5, 1938

Mr. A. J. Brock
General Electric Company
Saint Louis, Missouri

Dear Mr. Brock:

I am sure you will be interested to know that we have sold twelve homes, and the first four of our program are not as yet totally completed.

We, of course, will take credit for building a good house; but to be fair with you, must say that the General Electric equipment installed in these houses has in a big way been responsible for the splendid acceptance we have received on these homes here in St. Louis.

We have done no advertising as yet on this project, aside from billboards. Last Sunday, however, more than twenty-five hundred visited our properties.

Within the next day or two we will start an additional twenty-five.

Yours very truly,

Edwin Wood

EDWIN WOOD,
CONTRACTOR & BUILDER

EN/s

● People in and about St. Louis, Mo., are buying Mr. Wood's houses even before they're completed.

Why?

Partly because of sound construction. Partly because both architecture and interior planning are attractive. Partly because modern American families are alert to the comforts and conveniences which complete electrical services provide, and want them in the homes they buy. Partly because people judge houses by what they can see and, recognizing the quality of General Electric equipment, they are confident these houses are a sound investment.

Mr. Wood, like builders everywhere, is finding G-E equipment, backed by a tested house merchant.

THIS IS THE STORY

KEY TO BETTER LIVING

STOP HERE / SEE IT TODAY /

\$31⁰⁰ a month Buys
GENERAL ELECTRIC
Fully Equipped HOMES

● Dishwashers ● Ranges
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● Air Conditioning
Solely E. F. Wood or Reymours Copyrighted Plans
Call G. Stifel Realty Co. AGENTS

\$4,500 HOUSES FIRST IS COMPLETED!

G-E EQUIPPED

THIS IS ONE OF THE HOUSES

dising plan, a key to increased profits. Ask the G-E Home Bureau for full details. The coupon on this page is for your convenience.

FREE HELP FOR BUILDERS

The G-E Home Bureau, a department specializing on builders' problems and needs, invites you to avail yourself of its services. It offers:

1. A tested house merchandising plan—an aid in selling which builders in all sections of the country are using successfully.
2. An Architectural Service—the Home Bureau does not furnish plans, but its staff of experts will check *your* plans from an electrical point of view and make suggestions regarding wiring, heating and air conditioning, lighting, kitchens, and laundries.
3. An Advertising Service—tested advertising campaigns, layouts and copy, are ready and adaptable to your use.

Get full details of this Service. It places you under no obligation. Mail the coupon today.



GENERAL ELECTRIC HOME BUREAU
570 Lexington Avenue, New York, N. Y.
I am interested in further information regarding General
Electric's house merchandising plan.

Name.....
Address.....
City.....

GENERAL ELECTRIC

From Chicken Coop to Convention Hall...

J-M FLEXBOARD

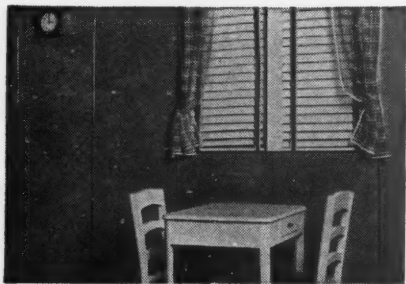
OPENS UP NEW FIELDS FOR
EXTRA PROFITS!



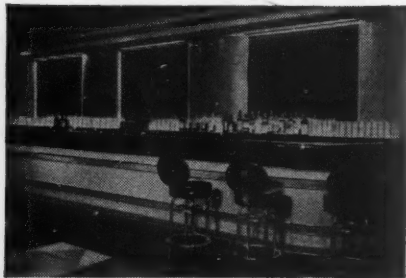
ON FARMS:—The hard, easily cleaned surface of J-M Standard Flexboard makes it ideal for lining chicken and milk houses, etc. It is rot- and vermin-proof, cannot burn.



IN OFFICES:—Standard Flexboard assures permanence, presents a pleasant, dignified appearance. On this installation, it was painted to harmonize with ceiling decorations.

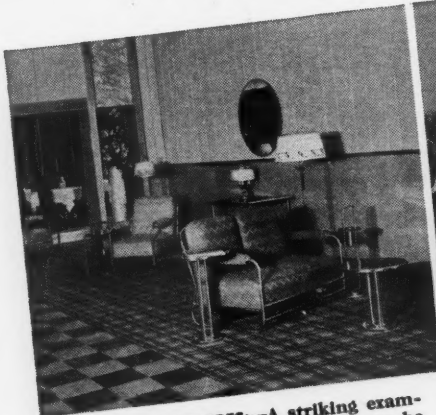


IN HOMES:—Fireproof and wear-resistant, Decorative Flexboard is an ideal material for kitchens, bathrooms, game rooms, etc. Low installed cost appeals to any home owner.



IN BARS:—Decorative Flexboard is used on the face of this bar, and above and between the mirrors. A perfect illustration of the adaptability of this material to curved surfaces.

An abuse-proof, low-cost, asbestos sheet material with plain or decorative surface — —



IN DEPARTMENT STORES:—A striking example of how Decorative Flexboard can be used to achieve smart, modern effects.



FOR EXTERIORS:—The entire face of this building is of J-M Standard Asbestos Flexboard. Weather has little effect on this material.

ALL over the country, builders and contractors have learned that J-M Flexboard offers the first practical answer to the problem of furnishing a fireproof, durable wall or ceiling material that can be handled like wood and applied at a price anyone can afford.

J-M Asbestos Flexboard comes in 2 types:—J-M Standard Flexboard, an all-purpose utility board in large sheets, $\frac{1}{8}$ " or $\frac{3}{16}$ " thick, with an attractive gray finish which may be painted if desired. J-M Decorative Flexboard is ideal as a finishing material for kitchen walls, recreation rooms, restaurants, etc. It comes in a wide range of attractive colors, adaptable to almost any interior scheme. Its lustrous surface needs no further decorative treatment.

The installations shown here will open your eyes to the possibilities of J-M Flexboard. And when you learn how inexpensively the work can be done, you'll see unlimited opportunities in your community for both new work and modernization sales. Get samples and full details by writing Johns-Manville, 22 E. 40th St., N. Y. C.



JOHNS-MANVILLE
ASBESTOS FLEXBOARD



Harmony!

There's a keynote to interior woodwork and appointments as closely attuned to their harmonious effect as the conductor's pitch to his orchestra. That keynote is uniform color and texture . . . in paneled walls . . . in hardwood floors . . . in matched furniture.

In pitching keynotes for harmonious ensembles like that illustrated, Bradley conducts an operation peculiarly attuned to uniform color and texture selections. For **BRADLEY BRAND** products . . . in Oak and Gum Paneling, Trim and Mouldings . . . in Oak and Beech Flooring . . . (and in furniture wood parts as well) originate in Bradley's own hardwood timber stands which, maturing in a single area, and throughout which growing conditions are identical, provide a dependable, continuous yield in remarkably uniform stock.



For specifications to which this uniformity will contribute decorative color motif in well manufactured material, rely on **BRADLEY BRAND** service . . . whether for strictly formal installations or for Oak Plank Floors and Wainscoting in basement rumpus rooms, dedicated to swing time and good clean fun.

BRADLEY BRAND Hardwood Trim, Paneling, and Hardwood Flooring in Oak and Beech are sold through local distributors everywhere.



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LUMBER COMPANY of Arkansas
WARREN, ARKANSAS

Where Modern Materials Meet THE VITAL ELEMENT

(Trinidad Native Lake Asphalt)

is "Right at Home"



The charming home of J. D. McLamb, Atlanta, Ga., is one of the many new houses protected with a Barber Genasco Standard Individual Shingle Roof. Roger Hardegree, Architect.

A Barber Genasco Roof is just as much a part of today's new or remodeled home as air conditioning, glass-brick, insulation, and the many other modern materials that go into it. Because this roofing, and no other, gives your clients the superb age-old protection of genuine Trinidad Native Lake Asphalt — *The Vital Element*.

Trinidad Native Lake Roofing Asphalt performs its functions for roofing purposes as thoroughly and efficiently as other ultra-modern materials perform theirs. It provides an unusual balance between adhesiveness and cohesiveness. It retains its ductility and self-healing properties.

Recommend and use Barber Genasco Roofings for new homes

... for homes to be re-roofed. In fact, insist on Barber Genasco whenever specifications call for asphalt roofings. It's the sure way to give your clients the added protection of *The Vital Element*. Send Barber your inquiries about roofing and other asphalt uses.

BARBER ASPHALT CORPORATION
NEW YORK, N. Y.
MADISON, ILL.

BARBER, N. J.
CHICAGO, ILL.

BARBER Genasco ROOFINGS

SHINGLES • SIDINGS
• ROLL ROOFINGS •
BUILT-UP ROOFINGS



This residence, at Old Greenwich, Conn., is really two houses in one. One is a "Cape Codder" and the other is a "Salt Box." Each is a valuable Early American home at least 200 years old. Mr. Gale H. Carter is the owner. Architect: Chas. E. Kent, Heating Engineer: Chas. E. Scott, both of New York City.

Air conditioning is supplied by a "split" system, with approved Anthracite water-tubesteel boiler and approved Anthracite stoker.

20TH CENTURY HEAT in an 18TH CENTURY HOUSE

● Mr. Carter searched all New England for perfect examples of 18th Century American homes. He found not one, but two—bought them, transported them from their original sites to Old Greenwich, Connecticut, where they were re-erected as an harmonious residence. These rare and valuable examples of fine architecture deserved the best, safest, and most dependable heat. Mr. Carter states why he chose Anthracite:

"I desired air conditioning to protect the rare old panelling and my antique furniture. I selected Anthracite as fuel because it is clean. I rejected oil because I don't like the dirtiness of oil smoke. It forms a film on the furniture, and furthermore, gets on the leaves of my old trees. Now that Anthracite can be handled conveniently and economically, it is much to be preferred."

When planning new homes or modernizing old ones, remember that there are 7 reasons why Anthracite was selected as the fuel to heat this valuable, matchless architectural gem. With the whole field of heating fuels

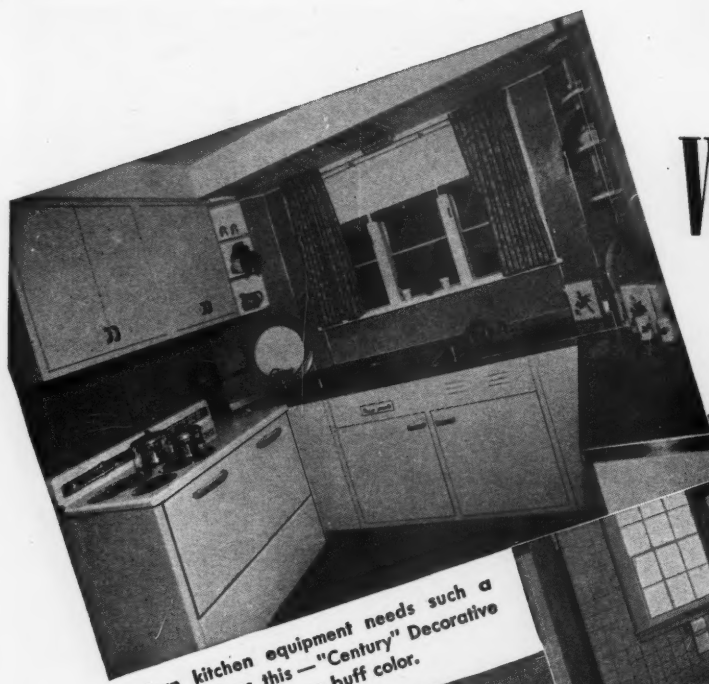
from which to choose, the owner of this "perfect home" selected Anthracite. With Anthracite as with no other fuel you can provide the ultimate owners of the homes you build with all 7 essentials of heating comfort. The wide variety of modern Anthracite equipment is described in a book which we will be glad to mail upon request. Anthracite Industries, Inc., Chrysler Building, New York.

This Seal of Approval appears on Anthracite equipment only after it has passed the most rigid tests in the heating field.



Save with
Pennsylvania **ANTHRACITE**
(HARD COAL)
THE ONLY 7 STAR FUEL

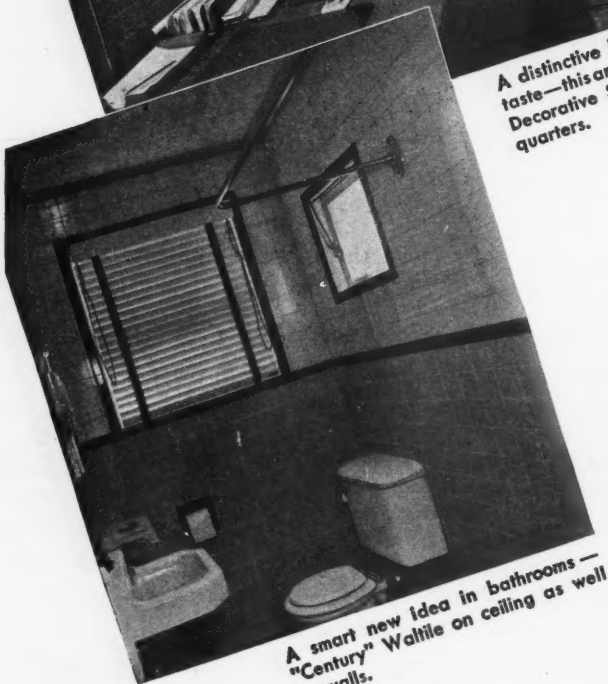
"CENTURY" WALLBOARDS



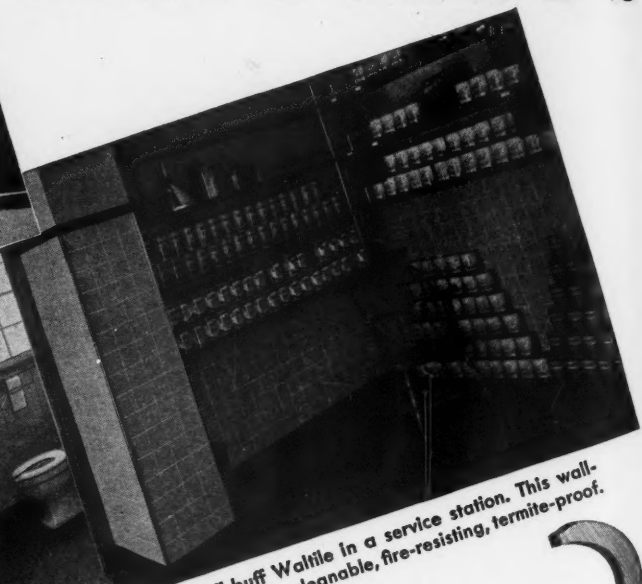
Modern kitchen equipment needs such a background as this—"Century" Decorative Sheetflextos in a warm buff color.



A distinctive business office in good taste—this architect selected "Century" Decorative Sheetflextos for his own quarters.



A smart new idea in bathrooms—"Century" Waltile on ceiling as well as walls.



"Century" buff Waltile in a service station. This wall-board is durable, cleanable, fire-resisting, termite-proof.



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YOUR customer's satisfaction is your guarantee of plus business. "Century" Asbestos Wallboards, for kitchen, bath and additional rooms, add to instant eye-appeal a lasting impression of true worth. You'll find no surer way to speed up your business at a profit.

KEASBEY & MATTISON COMPANY
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Asbestos Flexible Wallboard (Sheetflextos)
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K & M Mineral Wool Insulations for the home

Underline the products at left on which you want data, and mail this coupon today.

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NAME OF FIRM _____

ADDRESS _____

BEAT THE WEATHER...

60°
50°
40°
30°
20°
10°
0°
10°

When the temperature is slipping up and down daring you to take a chance with concrete, play safe with Marquette High Early Strength Cement.

● Concrete is safe in $\frac{1}{7}$ th the time with Marquette High Early Strength. The danger of freezing is quickly ended. Contractors have found it profitable to continue work throughout the winter. Contractors who are waiting for spring can safely start work weeks sooner by using Marquette High Early Strength. Beat the weather in this safe, simple way. The cost is comparable with regular concrete.

MARQUETTE CEMENT MANUFACTURING COMPANY
CHICAGO MEMPHIS





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Build comfort, beauty and quiet with BLENDTEX INTERIOR FINISH

NEW and old walls and ceilings await the magic of Blendtex! For, in schools, churches, theaters, hotels, offices, stores, residences, and other rooms, Blendtex and you have a job to do—a job that's economical to the owner and profitable to you!

WEATHERWOOD* BLENDTEX is a new, fascinating interior finish. Soft pastel colors blend harmoniously with its interesting texture and room furnishings on a *pre-decorated* surface. Tile and plank units are easy

to apply over new or existing wall and ceiling areas.

When you've "Blendtexed" a wall or ceiling, you have served your customer in four distinct ways. You've built, you've insulated, you've quieted noise and you've decorated. *That's what Blendtex does economically for owners.* And that's why Blendtex is a profitable business for you.

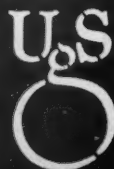
Let USG give you the new book of photographs illustrating money-making opportunities with this superior interior finish. Ask your USG dealer or use this coupon.

United States Gypsum Company

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SHEETROCK* . . . FIBER WALLBOARD . . . SHEATH-
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ACOUSTICAL MATERIALS . . . PAINT PRODUCTS
STEEL PRODUCTS . . . ROOFING PRODUCTS
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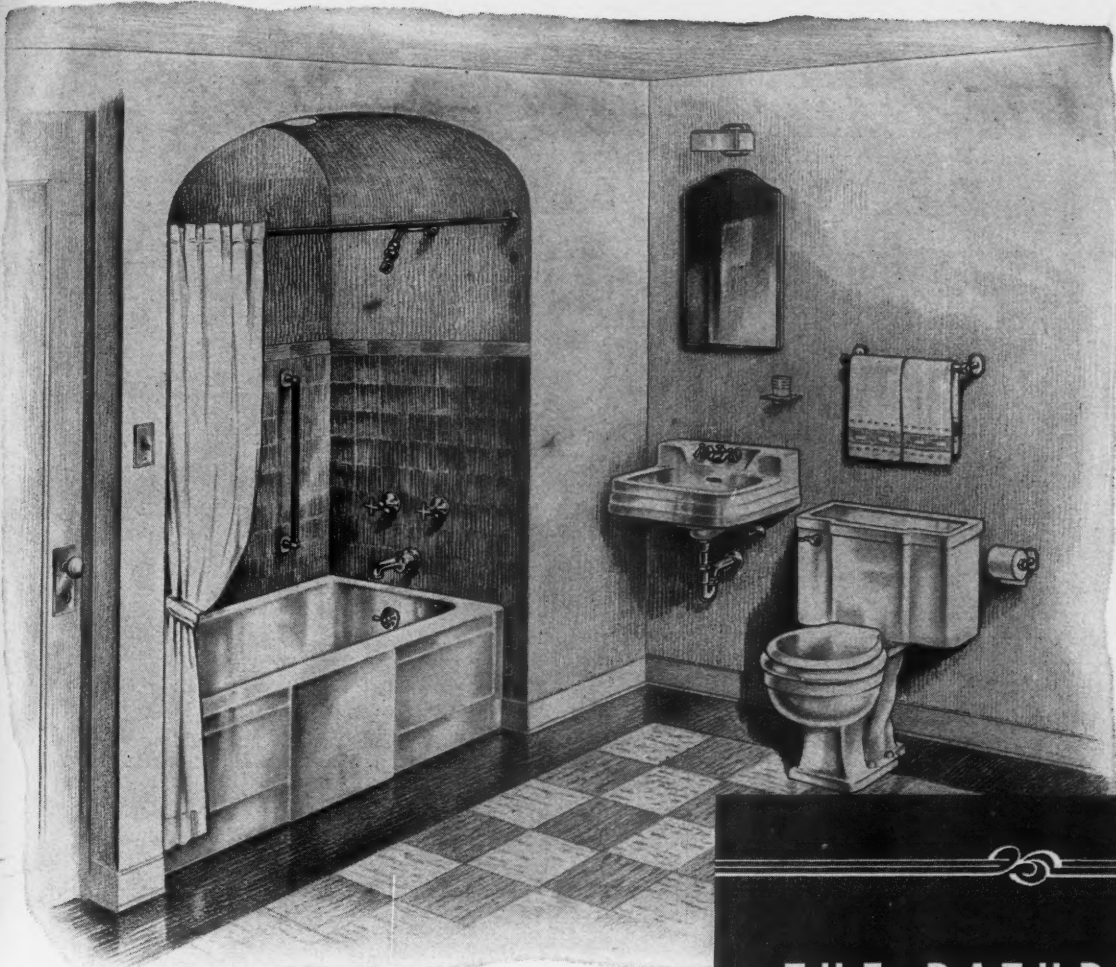
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300 West Adams Street, Chicago, Illinois
Please send me the new book of Blendtex photographs.

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Address.....

City..... State.....

AE 12



PERHAPS you never thought of it this way, but the bathroom and the kitchen in a new home are the only rooms that are practically complete before the owner moves in.

Because it is difficult for many people to visualize how a room undecorated and unfurnished will appear, they are apt to look upon the bathroom and the kitchen as typifying how the house will appear when occupied.

Here in these two rooms they gain a better idea of the character and quality of the home they consider buying. Realizing this, many builders are relying on Crane Bathrooms and Crane Kitchens to help sell the house, knowing that "there's magic in the name Crane." Nor does Crane quality mean higher cost; for despite the fact that only equipment of the finest design made of the finest materials is allowed to carry the name Crane, the fact remains that the Crane line is as complete in the inexpensive items as it is in equipment for costly homes. A new Crane book "Quality Plumbing and Heating Equipment for the Low-Cost Home" has been prepared for the operative builder—a copy is yours on request. Mail the coupon today.

CRANE

VALVES • FITTINGS • PIPE • PLUMBING • HEATING • PUMPS
CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO
NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS,
PLUMBING AND HEATING CONTRACTORS

THE BATHROOM

*Visualizes
the House*

TO YOUR PROSPECTS

Crane Co., 836 S. Michigan Ave., Chicago, Ill.

Gentlemen: Please send me a copy of your book "Quality Plumbing and Heating Equipment for the Low-Cost Home" without obligation on my part.

Name.....

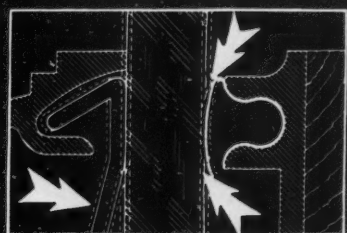
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Town..... State.....

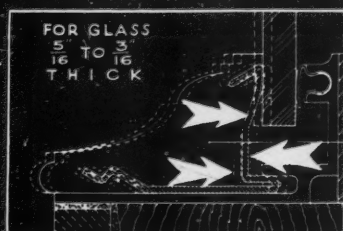
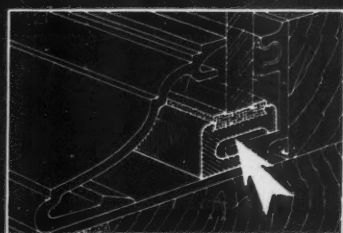
AD 12-38

Eight distinctive Features

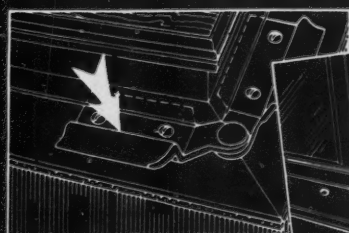
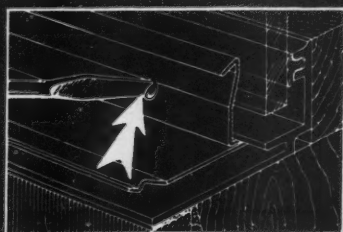
OF PITTCO STORE FRONT SASH



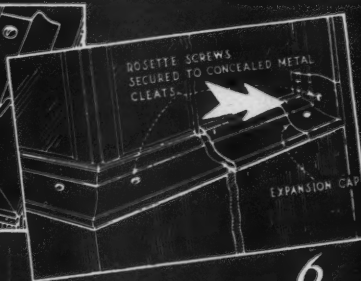
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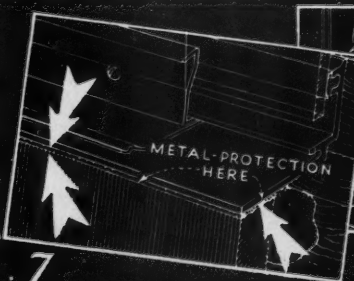
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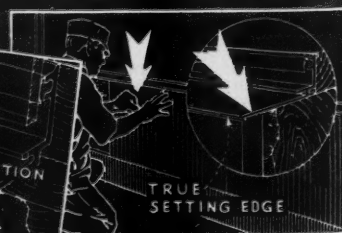
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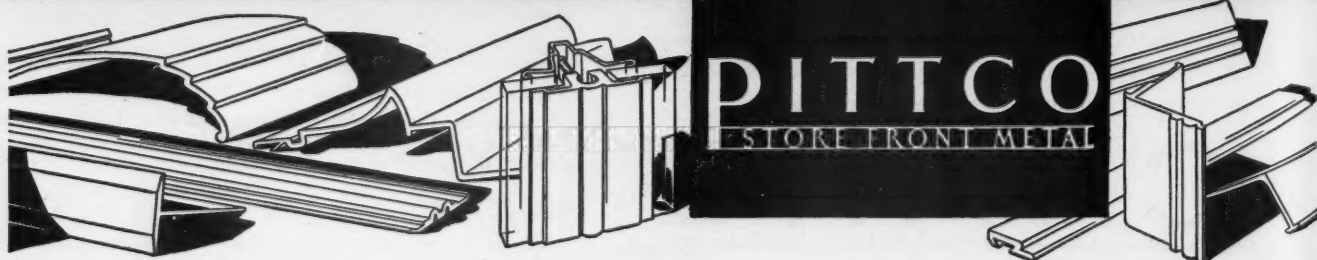
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8

1. Cushion Grip on Glass. The metal surfaces which contact the sides of the glass act as a yielding cushion, absorbing shocks.
2. Fixed Supporting Block. Non-ferrous metal supporting blocks are firmly wedged in groove, thus preventing tipping, rocking or sliding out of line during setting of glass.
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7. Protection for Carrara. A sturdy, square-cut, continuous metal flange projects over edge of Carrara, shielding the area which is most vulnerable.
8. True Setting Edge. The outer edge of inner member serves as a true, unvarying line to which face of Carrara or similar material is set.

Write for complete information on Pittco Store Front Metal . . . and for our file of detail drawings of various applications. Address Pittsburgh Plate Glass Company, 2144X, Grant Bldg., Pittsburgh, Pa.



PITTCO
STORE FRONT METAL

PITTSBURGH PLATE GLASS COMPANY

Carrara

MAKES THE KITCHEN

THE BRIGHT SPOT IN A HOME



A KITCHEN with walls of Carrara is a kitchen that pleases your clients . . . a kitchen that builds your reputation for quality work. Carrara may be obtained in thicknesses from $\frac{3}{8}$ " to $1\frac{3}{4}$ " and in a wide range of color tones.

HIGHLIGHT the homes you build with kitchens of Carrara Structural Glass. Carrara dresses up a kitchen as only a ground and polished structural glass can. Its lustrous, brilliant surfaces bespeak quality and permanence. Its matchless good looks help you to build kitchens and bathrooms of which you can be justly proud.

Carrara is a practical material, too. Easy to clean. Permanently free from checking, staining, fading or crazing. It never absorbs cooking odors — or

bathroom odors either. Never grows old. Requires only an occasional wiping with a damp cloth to keep indefinitely its brilliant beauty. And it is available in ten attractive colors, ranging from deep, vibrant tones to delicate, beautiful pastels.



Your clients know Carrara. They are willing to pay its slight extra cost to obtain advantages found in no other structural material. We urge you to find out how Carrara contributes to the building of better new homes and how it can be used to remodel old ones. Write for our book, "Carrara, the Modern Structural Glass." It gives complete information about this quality material. Pittsburgh Corning Corporation, 2148X Grant Building, Pittsburgh, Pa., also makers of PC Glass Blocks.

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PITTSBURGH PLATE GLASS COMPANY

and by W. P. Fuller & Co. on the Pacific Coast

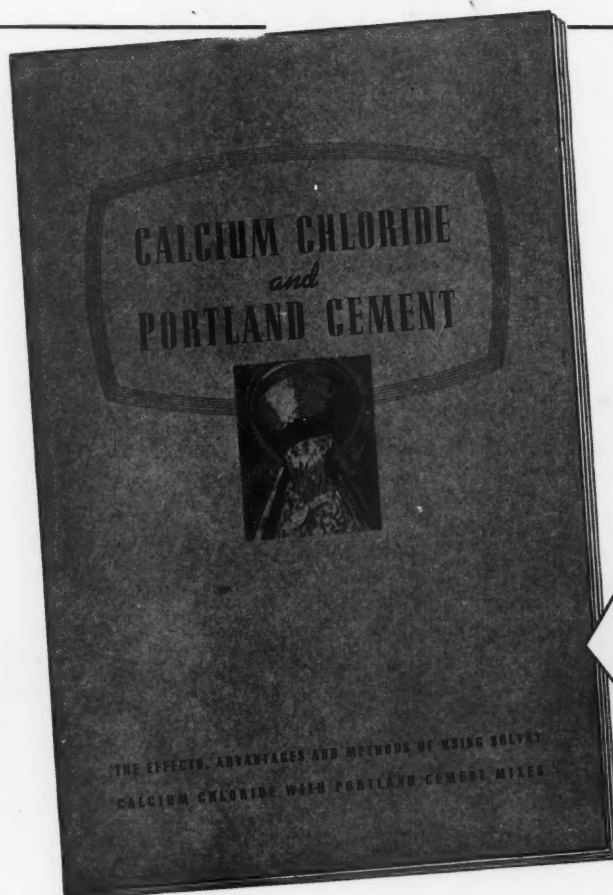
JUST WHAT HAPPENS when you use Calcium Chloride in Portland Cement Mixes?

Here is a new book that presents the facts clearly . . . concisely

- Just what will calcium chloride do for cold weather concrete?
- How does it affect setting time? . . . strength? . . . early strength? . . . ultimate strength?
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- How does it affect density? . . . water-proofing?
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These are just a few of the many questions answered in this new, 44-page booklet.

This book deals in facts, clearly presented and easy to follow. It is practical enough for plant operators and contractors. It also contains complete technical information for designing engineers and architects. Fill in the



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coupon immediately for your copy of this first, limited printing.

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Kindly send me a copy of your new booklet "Calcium Chloride and Portland Cement."

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CALCIUM
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TOPPING ALL OTHERS WITH **All-New Trucks** **All-New Engines**



More POWER, More TORQUE, New APPEARANCE for 1939 . . . and 12 New Diesel Models!

1939 truck buyers will look at GMC *first*. Every engine is new! Every engine is General Motors built,—and every GMC valve-in-head engine is built entirely in the mammoth GMC factory. Now, GMC leads *all* trucks in POWER and in performance results! Handsome new styling sets them apart, too. And the introduction of 12 new, highly developed GMC *Diesel* models makes truck history! Only GMC Diesels have the simplicity of gas engines, being easy to understand and to service. Extremely saving on fuel, the revolutionary GMC Diesels are also highly flexible in operation, whether pulling at a slow gait or “riding high” with the throttle open!

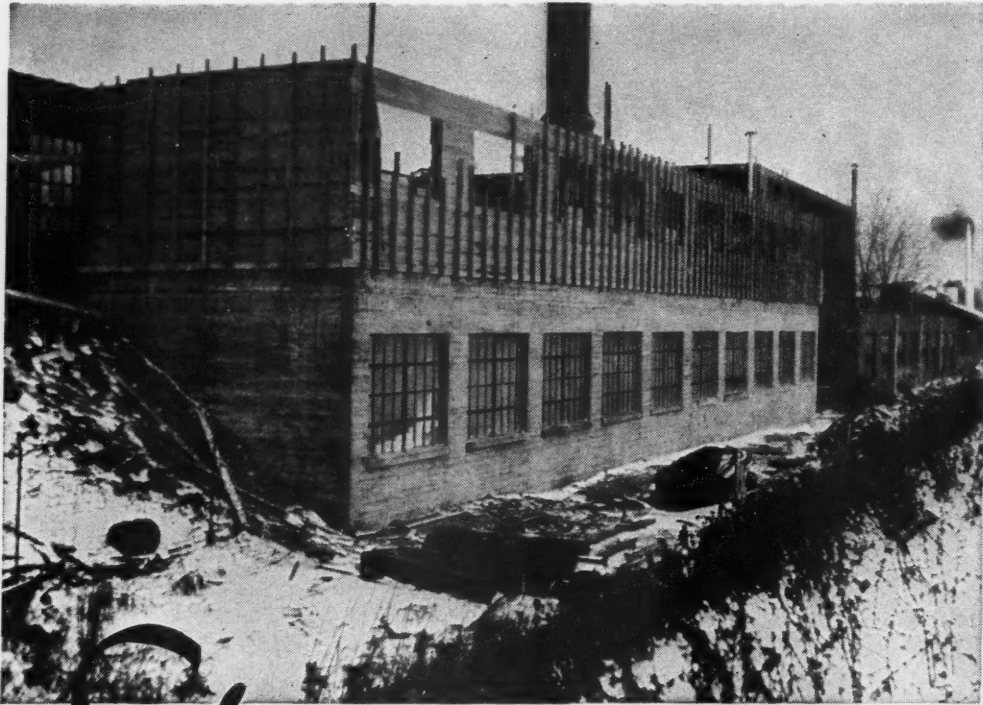
More cab room, more driving comfort and better vision on light-duty GMC's for 1939!—And GMC's “longer and stronger” bodies are this year bigger and better than ever!

Our own YMAC Time Payment Plan assures you of lowest available rates

New
BIGGER CABS
AND BODIES
For Light-Duty GMC's
—and GMC now offers
SYNCRO-MESH trans-
missions on medium
and heavy-duty models.



TRUCKS ★ TRAILERS ★ DIESELS

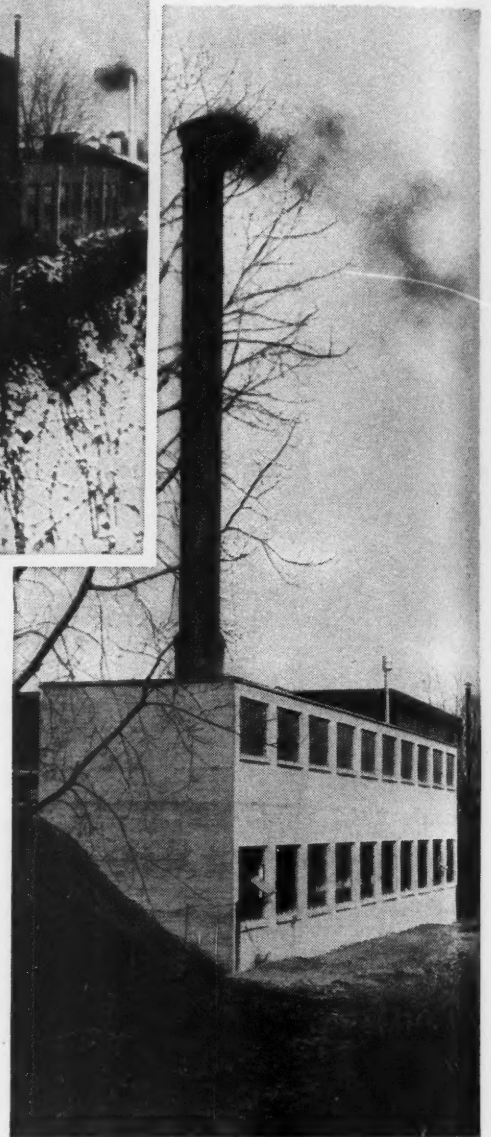


Safe winter Concrete in 48 Hours

A fire crippled the Gatke Corporation plant. Quick rehabilitation was vital. In spite of winter, with the help of quick service concrete, the contractor completed a factory addition and a spur coal trestle in only six weeks. Temperatures were as low as 18°. Lehigh Early Strength Cement was used. It makes better, denser concrete three to five times faster than normal cement used under the same conditions. Consequently only 48 hours after pouring columns for the trestle, tracks were in place and 50-ton cars run over them. How quick service concrete speeded the entire job is typified by the fact that steel sash were set in 10-foot wide window openings only 24 hours after pouring the concrete.

Winter or summer for any job, large or small, you can gain the advantages of quick service concrete made with Lehigh Early Strength Cement. You can do more work with the same labor and equipment. Overhead costs are lower because of shorter job duration. Because of quick re-use, form costs are minimum. In cold weather, heat-protection costs are negligible. By avoiding delay, your customers will be better pleased. Informative literature will be sent on request.

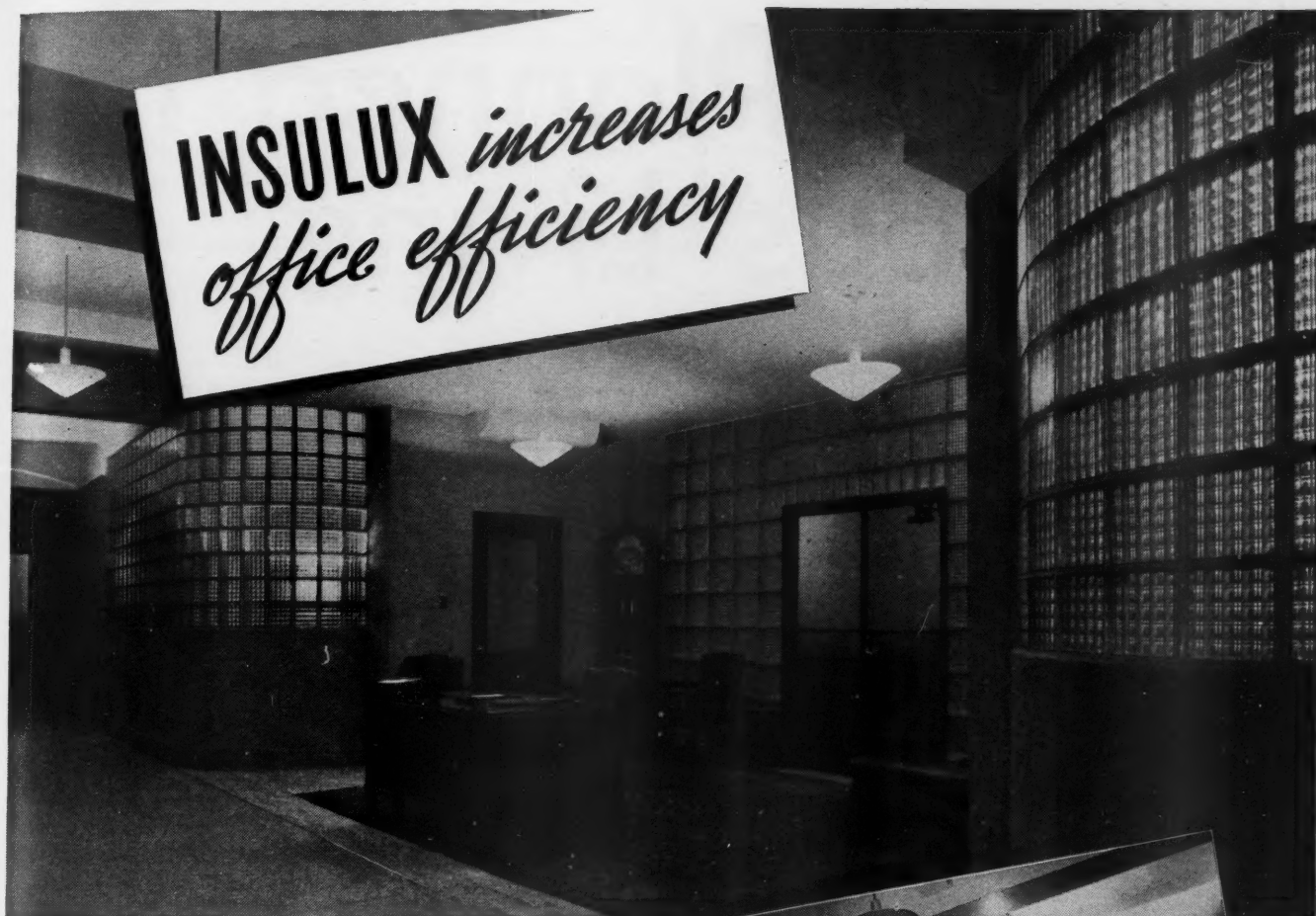
LEHIGH PORTLAND CEMENT COMPANY
Allentown, Pa. Chicago, Ill. Spokane, Wash.



Gatke Corporation Factory, Warsaw, Ind.
Contractor: Hodges Construction Co.



LEHIGH EARLY STRENGTH CEMENT



Reception Room, Fuller, Rodney and Redmond,
New York City. A. G. Alexander, Architect.

● Brightness, Quietness, Dignity, Attractiveness and Privacy are important attributes of office buildings that use INSULUX to Light — the modern way. Owens-Illinois INSULUX does all the things expected of an office partition, and does them better. Because it transmits light, and at the same time deadens sound, corridors and hallways may be lighted with borrowed light without the usual high sound transmission. In many office buildings, this INSULUX feature has also reduced lighting costs considerably. INSULUX is easily cleaned, requires no decoration, increases rentability of property and it can be taken down and re-erected with a high percentage of salvage. These features, and others equally practical, make INSULUX Glass Block the ideal office building material. A wealth of structural data and case histories of successful office installations are available on your request. Use the coupon. Owens-Illinois Glass Company, Toledo, O.



Corridor, Fuller, Rodney and Redmond,
New York City. A. G. Alexander, Architect.

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OWENS-ILLINOIS *First in Glass*

OWENS-ILLINOIS GLASS COMPANY

Insulux Products Division
303 Madison Avenue, Toledo, Ohio

Please send, without obligation, complete information about the use of Insulux Glass Block in commercial and industrial planning.

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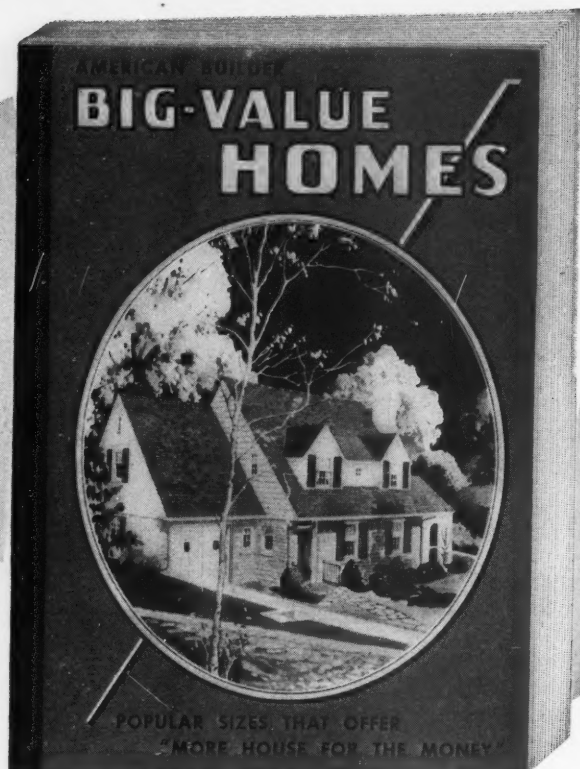
Address _____

City _____

County _____

State _____

Homes Planned for Gracious Living



CHAPTER I

"Value in Today's Homes"

Good News for Today's Home Builders.
 Ten Helps to Lower Home Costs.
 Pictograph Analysis Shows Impressive Increase in Home Values.
 Reduced FHA Financing Costs Leave More Money for Actual Home Construction.
 6-Room Scarsdale "Modern Efficiency Home" that sold for almost \$2,000 less than a comparable 5-room house put up by the same builder in 1928.
 Front Cover Home Illustrates High 1938 Value.
 The startling evolution from "Shirt Front Bungalows" to Distinctive Homes.
 Scientific Methods Reduce Home Costs and give 40% more value for the same money.
 Two Money-Saving Montford Hills Colonials.
 "Perfecting a Home Plan," featuring year to year improvements in design to meet advancing trends.
 Two late Perfected English Type Homes.
 "Modern Design Beyond Comparison," creating New Standards of Home Comfort.

→ All the homes presented in the book have exterior views and large, well dimensioned floor plans—many of them beautiful interior views, specifications, materials lists, and cost breakdowns. ←

With Super Value Per Home Dollar

SUCH are the 90 Homes presented in the 172 pages of this most useful and usable Plan Book, totally different from any publication of its kind ever put out. These homes have been carefully selected from several hundred of the best examples of current residential construction, with special reference to their architectural charm, their salability in today's market and the spectacular definiteness with which they demonstrate that the building industry is delivering a product that possesses 25% to 40% more value per dollar than home buyers were getting in 1926-1929. This partial summary of the book's contents tells the story!

CHAPTER II

"Big-Value Small Houses"

Old World Style in a delightful Concrete Masonry House.
 Flat-roof 2nd floor deck Modernistic Manor in Oklahoma.
 Three 6-room Colonials with unique architectural charm.
 Interesting Apartment Cottage for young couple or two elderly people.
 "Little but Livable" 4- and 5-room Cottages at St. Albans.
 More for the Money Devon Cottage.
 Attractive Period Styled Small Homes in Lindop's Broad-view Development, featuring modern planning.
 "Master Built" Plywood House in Detroit.
 Hillside Heights Home that can be carried at about \$30 per month, with cost breakdown and specifications.
 Cozy 5-room White Brick Bungalow.
 "Plenty of Room without Basement," with attractive exterior.
 "\$1,000 More House for the Money" in the Olsen Basementless "Utility" Houses.
 New England Basementless home, so well insulated that it costs only \$5 per month to heat.
 Mayfair Acres Country Colonial with good proportions and careful planning.
 Compact 25' x 25' English Home, with a cheerful well-equipped kitchen.
 A Detroit House "that grows" for the small income.
 Lovely small house in Connecticut, built at an angle.

MORE DETAILS ON NEXT PAGE

To get a copy of "American Builder Big-Value Homes" absolutely FREE with your American Builder subscription or renewal order, accompanied by \$2 for one year, \$3 for two years, or \$4 for three years,

(Continued from preceding page)

CHAPTER III

"Low Cost Homes that Pay their Way"

7-room all lumber "Dri-Built" Ohio home.
Mayfair Gardens 1st floor bedroom and bath Model Home.
4-room Bungalow with fetching Dining Bay.
28' x 28' Hillside Heights Colonial with 4 bedrooms.
Glen Ellyn Cape Cod with good plan and fine detailing.
Four \$35 per month New Jersey Colonials.
"How to Build to Save Fuel."
"Common Sense in Kitchen Planning."
"How to Build Modern Coal Bins and Double Bunks."
Camera Study of the construction methods of one of the nation's most successful builders—Levitt & Sons.
"50% More Outlets in the 1938 Home."
6-room Cape Cod, kitchen in front.
6-room Connecticut Colonial Home, with latticed entrance detail.
Studio Type California Cottage, with barbeque fireplace and bewitching lounging terrace.
6-room Kenilworth Home, with attached garage, very compact and livable.
California Frame-Stucco Bungalow.
Bronxville Cape Cod in Concrete Masonry, 5 rooms.

CHAPTER IV

"Larger Homes with Added Value"

Fine Shingled Home from the Northwest.
California-Monterey Type Hillside House.
California Farmhouse Style.
Windsor House at Brentwood Highlands, with wonderful views of living and breakfast rooms.
Two Cheel Houses that are 50% better values than 1926.
"Among the Pines at Orlando," a charming Florida rustic home with rambling layout.
The Hardwood Model Home at Memphis.
Country Homestead with city conveniences.
French Norman at moderate cost.
Attractive Georgian Home on wooded site.
Two Mott Homes that show 33% greater value.
New Jersey Colonial of simple charm.
Five exterior style variations of Harmon's Chatham Plan.
Harmon Colonials—Dutch and American.
An old Brick Home in Old Virginia, breathing hospitality in every line.
Elmhurst Colonial with chaste 2-story columned portico.
English Cottage Type Wichita Home designed for entertaining.
Another Cheelcroft Home with a most livable arrangement.

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CHAPTER V

"Moderne Homes for Economy"

Early American in Brick, Boards and Batten, with working plans.
New Style Ohio Home, with 3 pages of views, plans and details.
Cubist Creation at Glen Ellyn.
New Style Detroit Home, with construction outline.
Pittsburgh "Home that Grows."
Modern Efficiency and Style in Texas, featuring extensive use of glass block.
Modern St. Louis Home with new type of heating system.
"New Homes Inspire Old-Home Remodeling."
Two Basement Transformations that are no less than amazing.
Garage with arched doors enhance the beauty of a charming New England Home.

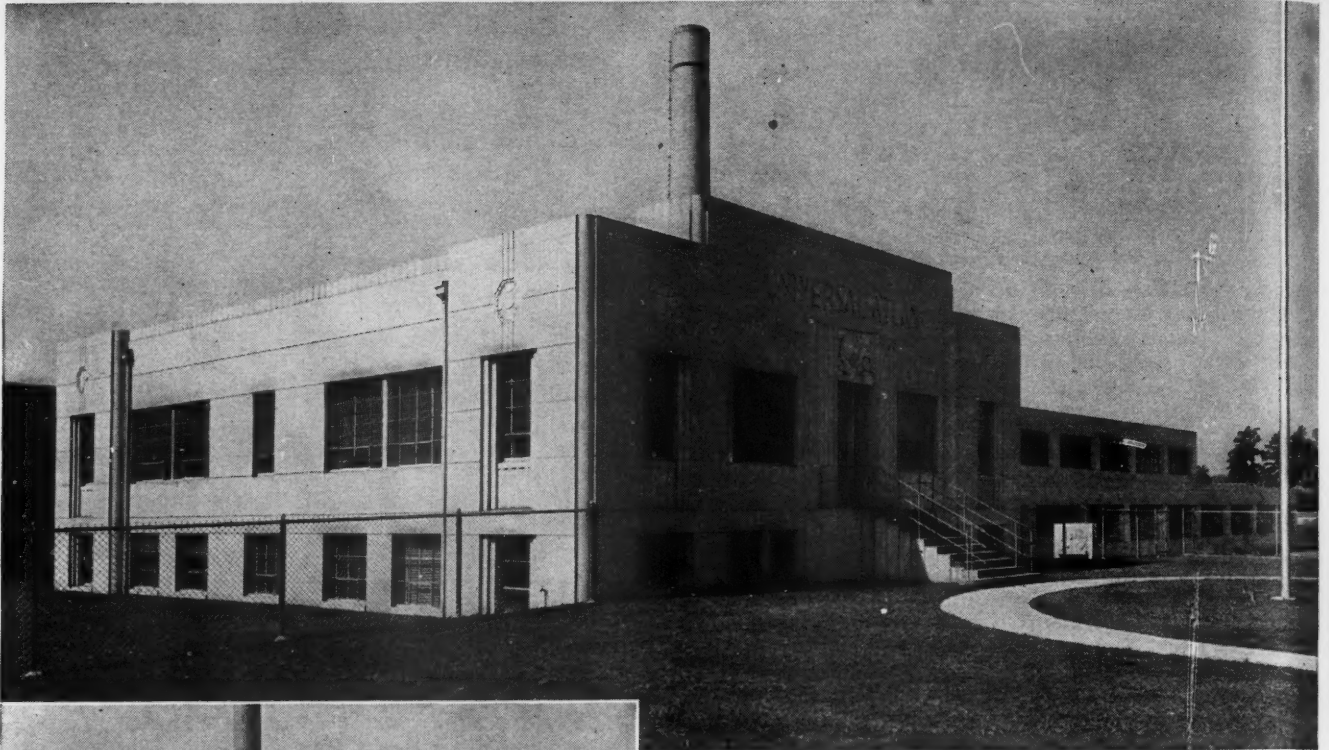
CHAPTER VI

"Savings in Group Home Building and Apartment Houses"

Group Home Planning Cuts Costs, with floor plans of 6 houses.
First Group of Row Houses Built in Chicago in 50 years.
Economical Plan in Kansas Apartments.
Modern Two-Flat Building combines new materials and advanced planning.
Cleveland Apartment House Restyled.
Philadelphia Row Houses brought up to date.

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